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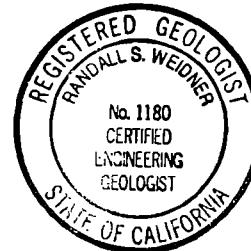
# **POST STEAM REMEDIATION LIMITED SOILS INVESTIGATION VISALIA POLE YARD VISALIA, CALIFORNIA**

**March 14, 2001**

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A handwritten signature in cursive script that reads "Randall S. Weidner".



**POST STEAM REMEDIATION  
LIMITED SOILS INVESTIGATION  
VISALIA POLE YARD  
VISALIA, CALIFORNIA**

**INTRODUCTION**

This limited soils investigation was conducted to preliminarily evaluate the efficacy of the Visalia Steam Remediation Project in removing the pole-treating chemical mass from the subsurface at the SCE Visalia Pole Yard. In conducting the investigation, the soil boring locations were selected because they represented the most highly contaminated areas as determined from past site characterization.

**FIELD INVESTIGATION**

The field investigation was conducted between September 11<sup>th</sup> and 15<sup>th</sup>, 2000. Five soil borings were advanced, utilizing 8-inch diameter hollow-stem auger equipment, to depths ranging from 61.5 feet to 121.5 feet below grade. Boring locations are shown on the Soil Boring Location Map, Figure 1. Undisturbed soil samples were generally collected on either 5-foot or 10-foot intervals. Soils were classified in the field by visual inspection using the Unified Soil Classification System (USCS), by a California Registered Geologist. Drilling and sampling activities were overseen by Dr. Eva Davis, of USEPA, and Harold King and Emmanuel Mensah, of DTSC. Boring Logs are included in Appendix A.

Soil samples were collected at the intervals noted in the boring logs, using a California modified split spoon sampler, lined with three, 6-inch brass sampling tubes. At each sampling interval, the sampler was driven eighteen inches using a standard 140-pound hammer. The number of blow counts to drive each 6-inch interval was recorded to document soil density and consistency.

Upon retrieval of the sampler, the lowermost 6-inch brass tube was labeled for laboratory submittal with the appropriate boring number and sample depth. The open ends of the tube were sealed with Teflon™ sheets, plastic end caps, and PVC tape. Collected samples were logged into a chain-of-custody form, cooled temporarily in an ice chest, and then transferred to an on-site freezer.

They were stored in the freezer until delivery to the environmental testing laboratory. Copies of the Chain-of-Custody forms are attached in Appendix B.

## ANALYTICAL PROGRAM

The three key chemicals of concern, as documented in the 1994 Visalia Pole Yard Remedial Action Plan (RAP), are: 1) benzo(a)pyrene; 2) pentachlorophenol, and; 3) TCDD equivalents. A total of 98 soil samples were submitted to the laboratory for analysis that included the key chemicals of concern. Samples were analyzed for: 1) polynuclear aromatic hydrocarbons and pentachlorophenol by EPA Method 8270 (semi-volatile organics), and; 2) TCDD equivalents by EPA Method 8280 (dioxins/furans). These are the same methods used in previous investigations.

Following receipt of the semi-volatile organics results, the data was evaluated to determine a representative sub-group of samples for analysis of TCDD equivalents. The criteria for selection were: 1) surficial samples (top ten feet) in the original source area; 2) the three highest pentachlorophenol concentrations from individual borings in this investigation, and; 3) where relatively high concentrations of dioxins/furans were observed in borings from the Remedial Investigation (specifically B-75(91)). It was understood that this analytical scheme would lead to exceedance of standard EPA holding times. However, for the following reasons, we considered the approach appropriate. First, we wanted to evaluate whether steam remediation had any effect on the pentachlorophenol and dioxin/furan relationship, i.e., were the dioxins/furans preferentially removed? Second, dioxins/furans are considered some of the most recalcitrant compounds in existence, so there is a low probability of significant degradation during the extended holding time. Third, all samples were maintained in a frozen state until analyzed.

Copies of all laboratory reports are included in Appendix B, along with corresponding chain-of-custody forms.

## FINDINGS

The subsurface geologic conditions have been very well characterized in the many earlier site investigations, which includes the 1992 Remedial Investigation (RI), where the stratigraphic nomenclature noted below was first developed. The conditions observed during this investigation were generally

similar. In general, the top thirty feet are composed of silts and silty sands. Between thirty and thirty-five feet, the previously identified "30-foot silt" was observed in all five borings. The "Shallow Aquifer", generally composed of silty sands and gravelly sands, was encountered between thirty-five and fifty feet. The "Shallow Aquitard", composed of moderately dense silt, was observed between about 50 and 80 feet deep. The "60-Foot Sand", located in the middle of the "Shallow Aquitard", is composed of a sand-silt mixture generally encountered between 60 and 70 feet deep. The depth from 80 to 100 feet comprises the "Intermediate Aquifer", composed of silty sands and gravels. In this investigation, the bottom of the aquifer was observed to be at about 107-108 feet below grade, with the exception of boring S-14(00). The "Intermediate Aquitard", composed generally of dense silts, was the lowermost zone investigated. It generally extends to about 120 feet below grade.

Results of the analytical program in soils, for the chemicals of concern in each individual boring, are summarized in Table 1.

Site-wide averages for the chemicals of concern, as well as those for individual borings, are shown in Table 2. The Table includes averages for: 1) the depth interval of 0-10 feet; 2) the depth interval between 10 and 60 feet (ground water is at about 60 feet below grade), and; 3) the entire interval investigated. Also included are the site-specific remediation standards for comparison.

The site-wide averages tabulated were chosen for the following reasons. The 0-10 foot interval represents the typical depth for the application of the "soil" cleanup standards for human exposures. The 10-60 foot interval is the unsaturated zone of the site that may be subject to a deed restriction if it does not meet the cleanup standards or acceptable risk levels. Soil below sixty feet, in the saturated zone, is not subject to soil cleanup standards, but rather, is evaluated based on the ground water cleanup standard.

## DISCUSSION

Based on a comparison of the site-wide averages with the remediation standards, it is apparent that the current soil concentrations, on average, are very near the remediation standards. For the top ten feet, the typical surface exposure route (for human health risk), all standards are met.

For the depth interval between ten feet and ground water (approximately sixty feet): benzo(a)pyrene is approximately 1.5 times the standard; pentachlorophenol is approximately 3 times the standard; and TCDD

equivalents are approximately ten times the remediation standard. Assuming the site-specific remediation standard values are based on a health risk of  $10^{-6}$ , all average values are  $1 \times 10^{-5}$  or lower. If the latest TCDD equivalents (World Health Organization, 1997) were used, all concentrations would be well within the  $10^{-6}$  health risk range.

For the site-wide average, the benzo(a)pyrene average is less than two times the remediation standard; pentachlorophenol is approximately 1.6 times the standard; and TCDD equivalents approximately 7.6 times the standard. Once again, assuming the remediation standards are based on a  $10^{-6}$  health risk, all average concentrations are within the  $10^{-6}$  risk range.

Considering this sampling program was extremely biased towards evaluating thermal remediation changes to the most highly contaminated areas of the site, these results are very encouraging. We believe that an unbiased full-site characterization will result in our having met the cleanup standards identified in the Visalia Pole Yard RAP and will have achieved acceptable health risk conditions.

# **TABLES**

**TABLE 1**

**SUMMARY OF SOIL CONCENTRATIONS OF CHEMICALS OF CONCERN  
VISALIA POLE YARD POST-STEAM REMEDIATION INVESTIGATION**

| <b>DEPTH<br/>(feet)</b> | <b>BENZO(A)PYRENE<br/>(µg/Kg)</b> | <b>PENTACHLOROPHENOL<br/>(µg/Kg)</b> | <b>TCDD TEQ<br/>(µg/Kg)</b> |
|-------------------------|-----------------------------------|--------------------------------------|-----------------------------|
| <b>B-75</b>             |                                   |                                      |                             |
| 5                       |                                   |                                      |                             |
| 10                      | ND(350)                           | ND(2,500)                            |                             |
| 15                      |                                   |                                      |                             |
| 20                      | ND(350)                           | ND(2,500)                            |                             |
| 25                      |                                   |                                      |                             |
| 30                      | ND(350)                           | ND(2,500)                            | 0.00                        |
| 35                      | ND(350)                           | ND(2,500)                            |                             |
| 40                      | ND(350)                           | ND(2,500)                            |                             |
| 45                      | ND(350)                           | ND(2,500)                            |                             |
| 50                      | ND(350)                           | ND(2,500)                            | 0.02                        |
| 55                      | ND(350)                           | ND(2,500)                            |                             |
| 60                      | ND(350)                           | ND(2,500)                            |                             |
| AVERAGE*                | 175*                              | 1,250*                               | 0.01                        |

Note: Detection limit in parenthesis.

\* Denotes average based on half the detection limit for non-detects.

**TABLE 1 (CONT.)**

| DEPTH<br>(feet)   | BENZO(A)PYRENE<br>( $\mu\text{g}/\text{Kg}$ ) | PENTACHLOROPHENOL<br>( $\mu\text{g}/\text{Kg}$ ) | TCDD TEQ<br>( $\mu\text{g}/\text{Kg}$ ) |
|-------------------|---|--|---|
| <b>MW-34/B-79</b> |   |  |   |
| 5                 | ND(350)                                       | ND(2,500)  | 0.0                                     |
| 10                | ND(350)                                       | ND(2,500)  | 0.55                                    |
| 15                | 530   | ND(2,500)  |   |
| 20                | 620   | ND(2,500)  |   |
| 25                | 610   | 270,000  | 11.02                                   |
| 30                | 630   | 140,000  | 13.26                                   |
| 35                | 1,100   | ND(2,500)  |   |
| 40                | 1,100   | 25,000   | 23.59                                   |
| 45                | 560   | ND(2,500)  |   |
| 50                | 1,500   | 2,600  |   |
| 55                | 150   | 500  |   |
| 65                | ND(350)                                       | ND(2,500)  |   |
| 60                | ND(350)                                       | ND(2,500)  |   |
| 70                | ND(350)                                       | ND(2,500)  |   |
| 75                | ND(350)                                       | ND(2,500)  |   |
| 80                | ND(350)                                       | ND(2,500)  |   |
| 85                | 340   | ND(2,500)  |   |
| 90                | 180   | ND(2,500)  |   |
| 95                | 160   | ND(2,500)  |   |
| 100               | ND(350)                                       | ND(2,500)  |   |
| 105               | ND(350)                                       | ND(2,500)  |   |
| 110               | 1,600   | ND(2,500)  |   |
| 115               | 4,100   | ND(2,500)  |   |
| 120               | 1,300   | ND(2,500)  |   |
| AVERAGE           | 669   | 20,026   | 9.68                                    |

Note: Detection limit in parenthesis.

\* Denotes average based on half the detection limit for non-detects.

**TABLE 1 (CONT.)**

| DEPTH<br>(feet)  | BENZO(A)PYRENE<br>( $\mu\text{g}/\text{Kg}$ ) | PENTACHLOROPHENOL<br>( $\mu\text{g}/\text{Kg}$ ) | TCDD TEQ<br>( $\mu\text{g}/\text{Kg}$ ) |
|------------------|---|--|---|
| <b>EW-1/B-82</b> |   |  |   |
| 5                | ND(350)                                       | ND(2,500)  | 0.00                                    |
| 10               | ND(350)                                       | 250  | 1.67                                    |
| 15               | ND(350)                                       | 240,000  |   |
| 20               | 60  | ND(2,500)  |   |
| 25               | ND(350)                                       | 180,000  | 4.61                                    |
| 30               | 870   | 970,000  | 5.03                                    |
| 35               | 960   | ND(2,500)  |   |
| 40               | 300   | 510,000  | 12.23                                   |
| 45               | 170   | 120,000  |   |
| 50               | 7,500   | ND(2,500)  |   |
| 55               | 230   | 33,000   |   |
| 60               | 140   | ND(2,500)  |   |
| 65               | 3,600   | ND(2,500)  |   |
| 70               | ND(350)                                       | ND(2,500)  |   |
| 75               | 1,700   | ND(2,500)  |   |
| 80               | 470   | ND(2,500)  |   |
| 85               | 120   | ND(2,500)  |   |
| 90               | 130   | ND(2,500)  |   |
| 95               | ND(350)                                       | ND(2,500)  |   |
| 100              | ND(350)                                       | ND(2,500)  |   |
| 105.5            | 8,800   | ND(2,500)  |   |
| 110              | 3,300   | ND(2,500)  |   |
| 115              | ND(350)                                       | ND(2,500)  |   |
| AVERAGE          | 1,293   | 90,141   | 4.71                                    |

Note: Detection limit in parenthesis.

\* Denotes average based on half the detection limit for non-detects.

**TABLE 1 (CONT.)**

| DEPTH<br>(feet) | BENZO(A)PYRENE<br>( $\mu\text{g}/\text{Kg}$ ) | PENTACHLOROPHENOL<br>( $\mu\text{g}/\text{Kg}$ ) | TCDD TEQ<br>( $\mu\text{g}/\text{Kg}$ ) |
|-----------------|---|--|---|
| <b>S-14(00)</b> |   |  |   |
| 5               | ND(350)                                       | ND(2,500)  |   |
| 10              | ND(350)                                       | ND(2,500)  |   |
| 15              | ND(350)                                       | ND(2,500)  |   |
| 20              | ND(350)                                       | ND(2,500)  |   |
| 25              | ND(350)                                       | ND(2,500)  |   |
| 30              | ND(350)                                       | ND(2,500)  |   |
| 35              | 120   | 62,000   | 2.38                                    |
| 40              | 280   | 620  |   |
| 45              | 830   | 3,800  | 13.05                                   |
| 50              | 1,200   | 3,800  | 27.06                                   |
| 55              | 3,400   | ND(2,500)  |   |
| 60              | 640   | 140  |   |
| 65              | 210   | ND(2,500)  |   |
| 70              | 1,100   | ND(2,500)  |   |
| 75              | 150   | ND(2,500)  |   |
| 80              | 140   | ND(2,500)  |   |
| 85              | 760   | ND(2,500)  |   |
| 90              | 230   | ND(2,500)  |   |
| 95              | 1,400   | ND(2,500)  |   |
| 100             | 2,500   | ND(2,500)  |   |
| 102             | 110   | ND(2,500)  |   |
| 105             | 850   | ND(2,500)  |   |
| 110             | 600   | ND(2,500)  |   |
| 112             | 430   | ND(2,500)  |   |
| 115             | 1,400   | ND(2,500)  |   |
| AVERAGE         | 696   | 3,814  | 14.16                                   |

Note: Detection limit in parenthesis.

\* Denotes average based on half the detection limit for non-detects.

**TABLE 1 (CONT.)**

| <b>DEPTH<br/>(feet)</b> | <b>BENZO(A)PYRENE<br/>(<math>\mu\text{g}/\text{Kg}</math>)</b> | <b>PENTACHLOROPHENOL<br/>(<math>\mu\text{g}/\text{Kg}</math>)</b> | <b>TCDD TEQ<br/>(<math>\mu\text{g}/\text{Kg}</math>)</b> |
|-------------------------|--|---|--|
| <b>B-94(00)</b>         |  |   |  |
| 10                      | ND(350)  | ND(2,500)   |  |
| 20                      | ND(350)  | ND(2,500)   |  |
| 30                      | ND(350)  | ND(2,500)   |  |
| 40                      | ND(350)  | ND(2,500)   |  |
| 50                      | ND(350)  | ND(2,500)   |  |
| 55                      | 120  | ND(2,500)   |  |
| 60                      | ND(350)  | ND(2,500)   |  |
| 65                      | ND(350)  | ND(2,500)   |  |
| 70                      | ND(350)  | ND(2,500)   |  |
| 75                      | ND(350)  | ND(2,500)   |  |
| 80                      | ND(350)  | ND(2,500)   |  |
| 85                      | ND(350)  | ND(2,500)   |  |
| 90                      | ND(350)  | ND(2,500)   |  |
| 95                      | ND(350)  | ND(2,500)   |  |
| 100                     | ND(350)  | ND(2,500)   |  |
| 105                     | ND(350)  | ND(2,500)   |  |
| 110                     | ND(350)  | ND(2,500)   |  |
| 115                     | ND(350)  | ND(2,500)   |  |
| AVERAGE                 | 172  | 1,250   | NONE   |

Note: Detection limit in parenthesis.

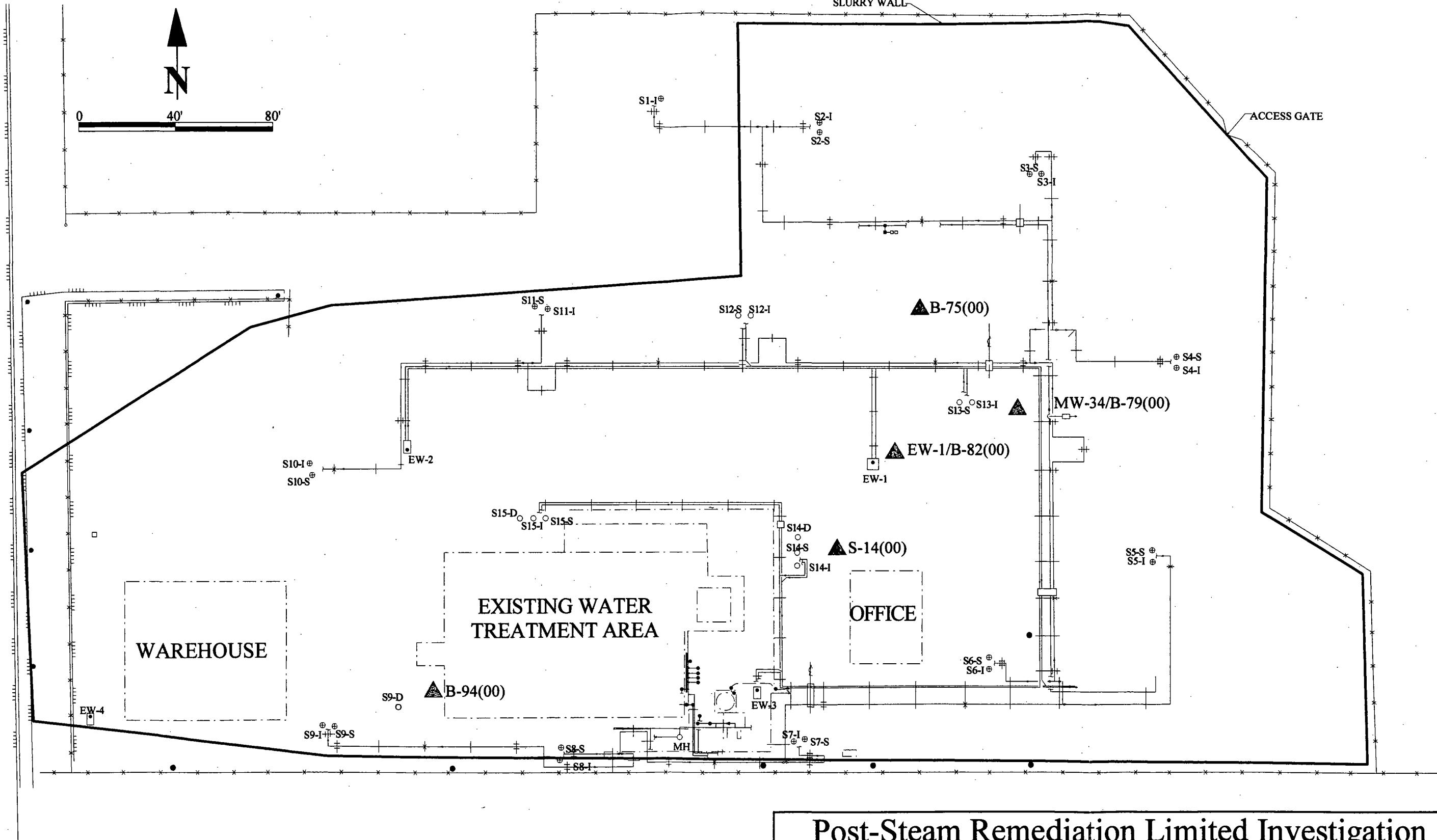
\* Denotes average based on half the detection limit for non-detects.

**TABLE 2**  
**SITE-WIDE AVERAGE OF SOIL CONCENTRATIONS**  
**CHEMICALS OF CONCERN**  
**VISALIA POLE YARD POST-STEAM REMEDIATION INVESTIGATION**

| BORING NO.            | BENZO(A)PYRENE<br>( $\mu\text{g}/\text{Kg}$ ) | PENTACHLOROPHENOL<br>( $\mu\text{g}/\text{Kg}$ ) | TCDD TEQ<br>( $\mu\text{g}/\text{Kg}$ ) |
|-----------------------|---|--|---|
| B-75(00)              | 175   | 1,250  | 0.01                                    |
| MW-34/B-79(00)        | 690   | 20,026   | 9.68                                    |
| EW-1/B-82(00)         | 1,293   | 90,141   | 4.71                                    |
| S-14(00)              | 696   | 3,814  | 14.16                                   |
| B-94(00)              | 172   | 1,250  | N/A                                     |
| 0-10' DEPTH AVERAGE   | 175   | 1,139  | 0.56                                    |
| 10'-60' DEPTH AVERAGE | 597   | 56,499   | 10.20                                   |
| SITE-WIDE AVERAGE     | 691   | 27,173   | 7.63                                    |
| CLEANUP STANDARD      | 390   | 17,000   | 1.0                                     |

# **FIGURE**

BEN MADDOX WAY



## Post-Steam Remediation Limited Investigation

Soil Boring Location  
Steam Remediation Project

### Legend

▲ Soil Boring Location

# **APPENDIX A**

## **BORING LOGS**

WELL  
CONSTRUCTION

|          |           | SAMPLE DATA |             |      | SOIL TYPE   |   | BORING NO. <b>B-75(00)</b> COOR./EL. 364164.93N 1918601.45E/334.74'<br>PROJECT <b>VISALIA POLE YARD POST-STEAM BORINGS</b><br>DRILLING METHOD <b>8" Hollow Stem Auger</b><br>DATE DRILLED <b>9/11/00</b> LOGGED BY <b>RSWeidner</b> |  | DEPTH (FEET) |  |  |
|----------|-----------|-------------|-------------|------|-------------|---|---|--|--------------|--|--|
| BLOWS/6" | TEMP. (F) | SAMPLE #    | SAMPLE TYPE | USCS | GRAPHIC LOG | DESCRIPTION   |   |  |              |  |  |
|          |           |             |             | GM   | 0-10        | <b>Silt-sand-gravel fill. Railroad ballast.</b>   |   |  | 0            |  |  |
|          |           |             |             | ML   | 10-20       | <b>Dk. yellowish brown, damp, sl. stiff sandy silt. No hydrocarbon odor.</b>                              |   |  | 10           |  |  |
| 3/5/3    |           | B-75(00)-10 | T           |      | 20-30       | <b>Reddish-brown mottled; soft clayey silt.<br/>No hydrocarbon odor.</b>                                  |   |  | 20           |  |  |
| 7/12/18  |           | B-75(00)-20 | T           | SM   | 30-40       | <b>Mod. yellowish-brown, damp, med. dense sand-silt mixture. No hydrocarbon odor.</b>                     |   |  | 30           |  |  |
| 18/23/27 |           | B-75(00)-30 | T           | ML   | 40-50       | <b>Grades to silty fine to coarse, pebbly sand.</b>   |   |  | 40           |  |  |
| 13/12/13 | 157       | B-75(00)-35 | T           | SW   | 50-60       | <b>Dark yellowish-brown, dry, sl. stiff silt. No hydrocarbon odor.</b>                                    |   |  | 50           |  |  |
| 13/13/11 | 146       | B-75(00)-40 | T           |      |             | <b>Grayish-orange, dry, loose, silty fine to medium sand.</b>   |   |  |              |  |  |
| 18/18/20 | 156       | B-75(00)-45 | T           |      |             | <b>Pale yellowish-brown, dry, sl. dense silty fine to coarse sand with pebbles. No hydrocarbon odors.</b> |   |  |              |  |  |
| 13/13/11 | 158       | B-75(00)-50 | T           | ML   |             | <b>Moderate yellowish-brown, damp, very stiff silt. No hydrocarbon odors.</b>                             |   |  |              |  |  |



## WELL CONSTRUCTION

WELL  
CONSTRUCTION

| SAMPLE DATA |           |                 |             | SOIL TYPE | BORING NO. <u>MW-34/B-79(00)</u> | COOR./EL. <u>364116.48N 1918642.33E/335.08'</u>                                      |
|-------------|-----------|-----------------|-------------|-----------|----------------------------------|--|
| BLOWS/6"    | TEMP. (F) | SAMPLE #        | SAMPLE TYPE | USCS      | GRAPHIC LOG                      | PROJECT <u>VISALIA POLE YARD POST-STEAM BORINGS</u>                                  |
|             |           |                 |             |           |                                  | DRILLING METHOD <u>8" Hollow Stem Auger</u>  |
|             |           |                 |             |           |                                  | DATE DRILLED <u>9/12/00</u> LOGGED BY <u>RSWeidner</u>                               |
|             |           |                 |             |           |                                  | DESCRIPTION  |
|             |           |                 |             | ML        |                                  | Dark yellowish-brown, damp, sl. stiff, fine sandy silt.                              |
| 12/16/20    |           | MW34/B79(00)-5  | T           |           |                                  | Dusky yellowish-brown. "Sweet" organic odor.   |
| 6/13/10     | 124       | MW34/B79(00)-10 | T           |           |                                  | Dusky yellowish-brown, damp, loose, silty fine-coarse sand.                          |
| 5/11/15     | 132       | MW34/B79(00)-15 | T           | SM        |                                  | Dusky yellowish-brown, damp, loose sand-silt mixture.                                |
| 2/3/3       | 159       | MW34/B79(00)-20 | T           | ML        |                                  | Dark yellowish-brown, damp, loose silt. "Sweet" organic odor.                        |
|             |           |                 |             | SM        |                                  | Dark yellowish-brown, damp, loose sand-silt mixture. "Sweet" organic odor.           |
| 7/11/15     | 155       | MW34/B79(00)-25 | T           |           |                                  |  |
| 10/7/10     | 154       | MW34/B79(00)-30 | T           |           |                                  |  |
| 6/6/12      | 161       | MW34/B79(00)-35 | T           | ML        |                                  | Dark yellowish-brown, damp, med. stiff sandy silt. Very slight "sweet" organic odor. |
|             |           |                 |             | SM        |                                  | Pale yellowish-brown, dry, loose, silty fine sand.                                   |
| 12/12/15    | 141       | MW34/B79(00)-40 | T           |           |                                  |  |
| 8/12/14     | 144       | MW34/B79(00)-45 | T           |           |                                  |  |
| 7/10/13     | 147       | MW34/B79(00)-50 | T           | ML        |                                  | Grades to silty fine-coarse sand, with small pebbles (10%).                          |
|             |           |                 |             |           |                                  | Moderate yellowish-brown, damp, very stiff, silt.                                    |

DEPTH (FEET)

WELL  
CONSTRUCTIONSAMPLE  
DATASOIL  
TYPEBORING NO. **MW-34/B-79(00)**COOR./EL. **364116.48N 1918642.33E/335.08'**PROJECT **VISALIA POLE YARD POST-STEAM BORINGS**DRILLING METHOD **8" Hollow Stem Auger**DATE DRILLED **9/12/00** LOGGED BY **RSWeidner**

## DESCRIPTION

DEPTH (FEET)

| BLOWS/6" | TEMP. (F) | SAMPLE #         | SAMPLE TYPE | USCS | GRAPHIC LOC |
|----------|-----------|------------------|-------------|------|-------------|
|          |           |                  |             | SM   |             |
|          |           |                  |             | ML   |             |
| 9/21/30  | 156       | MW34/B79(00)-65  | T           |      |             |
| 7/7/14   | 161       | MW34/B79(00)-60  | T           |      |             |
| 11/14/28 | 151       | MW34/B79(00)-65  | T           | SM   |             |
| 19/50    |           | MW34/B79(00)-70  | T           | ML   |             |
| 15/17/26 | 138       | MW34/B79(00)-75  | T           |      |             |
| 15/17/22 | 117       | MW34/B79(00)-80  | T           | SM   |             |
| 4/4/10   | 106       | MW34/B79(00)-85  | T           |      |             |
| 9/30/50  | 100       | MW34/B79(00)-80  | T           |      |             |
| 5/6/50   | 100       | MW34/B79(00)-85  | T           |      |             |
| 153/6"   | 100       | MW34/B79(00)-100 | T           |      |             |

Grades to silty fine-coarse sand, with small pebbles (10%).

Moderate yellowish-brown, damp, very stiff, silt.

Dark yellowish-brown, damp, very stiff, fine-medium sandy silt.

Moderate yellowish-brown, moist, medium stiff, sand-silt mixture. No hydrocarbon odor.

Moderate yellowish-brown, damp, very stiff, fine sandy silt. No hydrocarbon odor.

Moderate yellowish-brown, saturated, loose, silty fine-coarse sand. No hydrocarbon odor.

Becomes pebbly (~20%).



## WELL CONSTRUCTION

## SAMPLE DATA

**SOIL  
TYPE**

BORING NO. **MW-34/B-79(00)**

COOR./EL. 364116.48N 1918642.33E/335.08°

PROJECT VISALIA POLE YARD POST-STEAM BORINGS

#### **DRILLING METHOD    8" Hollow Stem Auger**

DATE DRILLED 9/12/00 LOGGED BY RSWeidner

## DESCRIPTION

BLOWS/6"

TEMP. (F)

SAMPLE #

AMPLE TYPE

JSCS

GRAPHIC LC

**DEPTH (FEET)**



WELL  
CONSTRUCTION

SAMPLE  
DATA

**SOIL  
TYPE**

BORING NO. **EW-1/B-82(00)**

COOR./EL. 364100.05N 1918589.68E/334.59°

PROJECT VISAI IA POI E YARD POST-STEAM BORINGS

#### DRILLING METHOD    **8" Hollow Stem Auger**

DATE DRILLED 9/12-13/00 LOGGED BY RSWeidner

## **DESCRIPTION**

### DEPTH (FEET)

|          |     |                |    |    |   |
|----------|-----|----------------|----|----|---|
|          |     |                | ML |    | Dark yellowish-brown, damp, sl. stiff, fine sandy silt.   |
| 8/12/16  |     | EW1/B42(00)-6  | T  |    | Dusky yellowish-brown.  |
| 6/6/6    | 94  | EW1/B42(00)-10 | T  | SM | Dusky yellowish-brown to grayish-orange, damp, loose, sand-silt-pebble mixture.                 |
| 5/5/7    | 106 | EW1/B42(00)-15 | T  |    | Dark yellowish-brown, damp, med. dense sand-silt mixture. Slight "sweet" organic odor.          |
| 4/4/6    | 111 | EW1/B42(00)-20 | T  | ML | Dark yellowish-brown, damp, sl. stiff silt. Sl.-mod. "sweet" organic odor.                      |
| 6/9/12   | 107 | EW1/B42(00)-25 | T  | SM | Moderate yellowish-brown, damp, loose fine-v. coarse sand. V. slight "Sweet" organic odor.      |
| 7/8/16   | 114 | EW1/B42(00)-30 | T  | ML | Moderate yellowish-brown, dry, med. stiff silt. V. slight "sweet" organic odor.                 |
| 5/10/15  |     | EW1/B42(00)-35 | T  | SM | Moderate yellowish-brown, dry, loose silty fine-v. coarse sand. V. slight "sweet" organic odor. |
| 7/7/11   | 134 | EW1/B42(00)-40 | T  |    |   |
| 10/12/17 | 156 | EW1/B42(00)-45 | T  |    |   |
| 14/16/20 | 165 | EW1/B42(00)-50 | T  |    | Grades to silty fine-coarse sand, with small pebbles (15%).                                     |
|          |     |                | ML |    | Moderate yellowish-brown, damp, very stiff, silt.   |

WELL  
CONSTRUCTIONSAMPLE  
DATASOIL  
TYPEBORING NO. **EW-1/B-82(00)**COOR./EL. **364100.05N 1918589.68E/334.59'**PROJECT **VISALIA POLE YARD POST-STEAM BORINGS**DRILLING METHOD **8" Hollow Stem Auger**DATE DRILLED **9/12-13/00** LOGGED BY **RSWeidner**

## DESCRIPTION

DEPTH (FEET)

| BLOWS/6"  | TEMP. (F) | SAMPLE #         | SAMPLE TYPE | USCS | GRAPHIC LOG | DESCRIPTION  | DEPTH (FEET) |
|-----------|-----------|------------------|-------------|------|-------------|--|--------------|
|           |           |                  |             | SM   |             | Grades to silty fine-coarse sand, with small pebbles (15%).  | 50           |
| 11/23/34  | 183       | MW34/B79(00)-55  | T           | ML   |             | Moderate yellowish-brown to orange mottled, dry, med. stiff silt.  | 55           |
| 6/7/13    | 179       | MW34/B79(00)-60  | T           | SM   |             | Dark yellowish-brown, wet, sl. dense, silty fine-coarse sand. No hydrocarbon odor.                       | 60           |
| 13/23/24  | 157       | MW34/B79(00)-65  | T           | SM   |             | Moderate yellowish-brown, moist, med. dense sand-silt mixture. No odor.                                  | 65           |
| 16/35/40  | 155       | MW34/B79(00)-70  | T           | ML   |             | Dark yellowish-brown, damp, med. stiff, silt. No hydrocarbon odor. Minor sheen in soil/water jar test.   | 70           |
| 11/18/32  | 152       | MW34/B79(00)-75  | T           | SM   |             | Dark yellowish-brown, saturated, loose, silty fine-coarse sand, with pebbles (<5%). No hydrocarbon odor. | 75           |
| 7/33/45   | 124       | MW34/B79(00)-80  | T           | SM   |             | Moderate yellowish-brown, wet, loose sand-silt mixture. No odor. No sheen.                               | 80           |
| 14/24/27  | 109       | MW34/B79(00)-85  | T           | SM   |             | Dark yellowish-brown, wet, mod. dense, sand-silt-gravel mixture. No odor. No sheen.                      | 85           |
| 11/15/26  | 111       | MW34/B79(00)-90  | T           | SM   |             |  | 90           |
| 12/34/26  | 106       | MW34/B79(00)-95  | T           | SM   |             |  | 95           |
| 20/20/50+ | 104       | MW34/B79(00)-100 | T           | SM   |             |  | 100          |
| 9/6/12    |           | -101.5           | T           | SM   |             |  |              |
| 1/1/1     |           | -103             | T           | SM   |             |  |              |
| 3/7/15    |           | -104.5           | T           | SM   |             |  |              |

WELL  
CONSTRUCTIONSAMPLE  
DATASOIL  
TYPEBORING NO. **EW-1/B-82(00)**COOR./EL. **364100.05N 1918589.68E/334.59'**PROJECT **VISALIA POLE YARD POST-STEAM BORINGS**DRILLING METHOD **8" Hollow Stem Auger**DATE DRILLED **9/12-13/00** LOGGED BY **RSWeidner**

## DESCRIPTION

| BLOWS/6"  | TEMP. (F) | SAMPLE #        | SAMPLE TYPE | USCS | GRAPHIC LOG | DEPTH (FEET) |
|-----------|-----------|-----------------|-------------|------|-------------|--------------|
| 20/20/50+ | 104       | EW1/B82(00)-100 | T           | SM   |             | 100          |
| 9/6/12    |           | -101.5          | T           |      |             |              |
| 1/1/1     |           | -103            | T           |      |             |              |
| 3/7/15    |           | -104.5          | T           |      |             |              |
|           |           | -105            | T           |      |             |              |
|           |           |                 |             | ML   |             |              |
|           |           |                 |             |      |             | 110          |
| 12/12/24  | 155       | EW1/B82(00)-110 | T           |      |             |              |
| 10/15/31  | 155       | EW1/B82(00)-115 | T           |      |             |              |
|           |           |                 |             |      |             | 120          |
| 1/2/8     | 152       | EW1/B82(00)-120 | T           |      |             |              |
|           |           |                 |             |      |             | 130          |
|           |           |                 |             |      |             | 140          |
|           |           |                 |             |      |             | 150          |

Dark yellowish-brown, wet, mod. dense, sand-silt-gravel mixture. No odor. No sheen.

Free product creosote in sampler.

Moderate yellowish-brown, moist, med. stiff, silt.

Free product creosote in middle core tube. Moderate creosote odor.

No sample recovery. Probably loose, wet, granular soils.

Bottom of boring at 121.5'.



WELL  
CONSTRUCTION

SAMPLE  
DATA

SOIL  
TYPE

BORING NO. **S-14(00)**

COOR./EL. **364058.08N 1918562.47E/335.19'**

PROJECT **VISALIA POLE YARD POST-STEAM BORINGS**

DRILLING METHOD **8" Hollow Stem Auger**

DATE DRILLED **9/13-14/00** LOGGED BY **RSWeidner**

DESCRIPTION

DEPTH (FEET)

0

Dark yellowish-brown, damp, soft, silt. No odor.

10

Grades to clayey silt.

20

Pale yellowish-brown, damp, loose, fine-medium sand. No odor.

30

Moderate yellowish-brown, dry, med. stiff silt.  
No odor.

40

Moderate yellowish-brown, dry, loose, silty fine-coarse sand. No odor.

50

Dark yellowish-brown, damp, med. stiff, silt.  
Slight creosote odor.

| BLOWS/6" | TEMP. (F) | SAMPLE #   | SAMPLE TYPE | USCS | GRAPHIC LOC |
|----------|-----------|------------|-------------|------|-------------|
|          |           |            |             | ML   |             |
| 3/4/7    | 108       | S14(00)-5  | T           |      |             |
|          |           |            |             |      |             |
| 3/3/3    | 117       | S14(00)-10 | T           |      |             |
|          |           |            |             |      |             |
| 6/6/6    | 123       | S14(00)-15 | T           | SM   |             |
|          |           |            |             |      |             |
| 5/5/5    | 126       | S14(00)-20 | T           |      |             |
|          |           |            |             |      |             |
| 3/3/4    | 126       | S14(00)-25 | T           |      |             |
|          |           |            |             |      |             |
| 9/10/13  | 140       | S14(00)-30 | T           | ML   |             |
|          |           |            |             |      |             |
| 9/13/20  | 133       | S14(00)-35 | T           |      |             |
|          |           |            |             |      |             |
| 8/10/15  | 126       | S14(00)-40 | T           |      | SM          |
|          |           |            |             |      |             |
| 12/15/25 | 143       | S14(00)-45 | T           |      |             |
|          |           |            |             |      |             |
| 10/17/19 | 144       | S14(00)-50 | T           |      | ML          |
|          |           |            |             |      |             |

| WELL CONSTRUCTION |           | SAMPLE DATA   |             |      | SOIL TYPE   | BORING NO. <b>S-14(00)</b>   | COOR./EL. <b>364058.08N 1918562.47E/335.19'</b> | DEPTH (FEET) |
|-------------------|-----------|---------------|-------------|------|-------------|--|---|--------------|
| BLOWS/6"          | TEMP. (F) | SAMPLE #      | SAMPLE TYPE | USCS | GRAPHIC LOG | PROJECT <b>VISALIA POLE YARD POST-STEAM BORINGS</b>  | DRILLING METHOD <b>8" Hollow Stem Auger</b>     |              |
|                   |           |               |             |      |             |  |   | 50           |
|                   |           |               |             | SM   |             | Moderate yellowish-brown, dry, loose, silty fine-coarse sand. No odor.   |   | 50           |
| 8/18/28           | 161       | S14(00)-55    | T           | ML   |             | Dark yellowish-brown, damp, med. stiff, silt. Slight creosote odor.  |   | 55           |
| 6/9/13            | 172       | S14(00)-60    | T           |      |             | Becomes clayey silt.   |   | 60           |
| 14/50-6"          | 162       | S14(00)-65    | T           | SM   |             | Dark yellowish-brown, moist, med. dense, silt-sand mixture. No odor.   |   | 65           |
| 6/11/25           | 147       | S14(00)-70    | T           | ML   |             | Dark yellowish-brown, moist, med. stiff, fine sandy silt with some gray mottling. No odor. No sheen in jar test. |   | 70           |
| 3/4/7             | 144       | S14(00)-75    | T           |      |             |  |   | 75           |
| 2/1/3             | 139       | S14(00)-80    | T           | SM   |             | Dark yellowish-brown, wet, soft/plastic, sandy silt with minor clay. No odor.                                    |   | 80           |
| 3/4/31            | 112       | S14(00)-85    | T           |      |             | Dark yellowish-brown, saturated, sl. dense, silty, pebbly medium-coarse sand. No odor.                           |   | 85           |
| 8/20/34           | 105       | S14(00)-90    | T           | SM   |             | Pale yellowish-brown.  |   | 90           |
| 7/9/15            | 114       | S14(00)-95    | T           |      |             | Oily sheen on core.  |   | 95           |
| 5/16/37           | 116       | S14(00)-100   | T           | ML   |             | Medium Dark gray. Moderate odor. No oily sheen in core.  |   | 100          |
| 15/22/24          | 114       | S14(00)-101.5 | T           |      |             | Dark yellowish-brown, moist, med. stiff, silt. No odor. No oily sheen.   |   | 101.5        |



WELL  
CONSTRUCTION

**SAMPLE  
DATA**

**SOIL  
TYPE**

BORING NO. S-14(00)

COOR./EL. 364058.08N 1918562.47E/335.19'

PROJECT VISALIA POLE YARD POST-STEAM BORINGS

**DRILLING METHOD**

DATE DRILLED 9/13-14/00 LOGGED BY RSWeidner

## DESCRIPTION

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SAMPLE #

SAMPLE TYPE

3

6

**DEPTH (FEET)**

| SAMPLE DATA |           |               |             | SOIL TYPE | BORING NO. <u>S-14(00)</u> | COOR./EL. <u>364058.08N 1918562.47E/335.19'</u>  |
|-------------|-----------|---------------|-------------|-----------|----------------------------|--|
| BLOWS/6"    | TEMP. (F) | SAMPLE #      | SAMPLE TYPE |           | GRAPHIC LOG                | PROJECT <u>VISALIA POLE YARD POST-STEAM BORINGS</u>  |
| DESCRIPTION |           |               |             |           |                            | DEPTH (FEET)   |
| 5/16/37     | 116       | S14(00)-100   | T           | SM        |                            | 100  |
| 15/22/24    | 114       | S14(00)-101.5 | T           | ML        |                            |  |
|             |           |               |             |           |                            | Dark yellowish-brown, moist, med. dense, silt. No creosote odor. No sheen.                                   |
| 9/9/10      | 117       | S14(00)-105   | T           | SM        |                            |  |
|             |           |               |             |           |                            | Dark yellowish-brown, saturated, loose, silt-sand mixture. Moderate creosote odor. Local oily sheen on core. |
| 4/7/8       | 135       | S14(00)-110   | T           | ML        |                            | 110  |
| 11/12/18    | 170       | S14(00)-111.5 |             |           |                            |  |
|             |           |               |             |           |                            | Dark yellowish-brown, moist, med. stiff, clayey silt. No creosote odor. No sheen.                            |
| 1/2/3       | 161       | S14(00)-115   | T           |           |                            |  |
|             |           |               |             |           |                            | Bottom of boring at 116.5'.  |
|             |           |               |             |           |                            | 120  |
|             |           |               |             |           |                            | 130  |
|             |           |               |             |           |                            | 140  |
|             |           |               |             |           |                            | 150  |

| WELL CONSTRUCTION |     | SAMPLE DATA |           |          | SOIL TYPE<br>USCS | GRAPHIC LOG | BORING NO. <b>B-94(00)</b>   | COOR./EL. <b>363996.84N 1918387.56E/334.36'</b> |
|-------------------|-----|-------------|-----------|----------|-------------------|-------------|--|---|
|                   |     | BLOWS/6"    | TEMP. (F) | SAMPLE # |                   |             | PROJECT <b>VISALIA POLE YARD POST-STEAM BORINGS</b>                        | DRILLING METHOD <b>8" Hollow Stem Auger</b>     |
| DESCRIPTION       |     |             |           |          |                   |             |  | DEPTH (FEET)                                    |
|                   |     |             |           |          | ML                |             | Dark yellowish-brown, damp, med. stiff, silt.<br>No creosote odor.         | 0   |
| 6/6/7             | 112 | B94(00)-10  | T         |          |                   |             |  | 10  |
|                   |     |             |           |          | SM                |             | Pale yellowish-brown, damp, loose, fine-coarse sand. No creosote odor.     | 20  |
| 5/8/8             | 113 | B94(00)-20  | T         |          |                   |             |  | 30  |
|                   |     |             |           |          | ML                |             | Fine-medium sand. No creosote odor.  | 40  |
|                   |     |             |           |          | SM                |             | Dark yellowish-brown, damp, soft silt. No odor.                            | 50  |
| 14/13/10          | 123 | B94(00)-30  | T         |          |                   |             |  |   |
| 15/23/26          | 127 | B94(00)-40  | T         |          | ML                |             | Pale yellowish-brown, dry, loose, pebbly medium-very coarse sand. No odor. |   |
| 12/18/18          | 141 | B94(00)-45  | T         |          |                   |             |  |   |
| 4/8/11            | 138 | B94(00)-50  | T         |          | ML                |             | Dark yellowish-brown, damp, med. stiff, silt.<br>No creosote odor.         |   |

WELL  
CONSTRUCTIONSAMPLE  
DATASOIL  
TYPEBORING NO. **B-94(00)**

COOR./EL. 363996.84N 1918387.56E/334.36'

PROJECT **VISALIA POLE YARD POST-STEAM BORINGS**DRILLING METHOD **8" Hollow Stem Auger**DATE DRILLED **9/14-15/00** LOGGED BY **RSWeidner**

## DESCRIPTION

DEPTH (FEET)

| BLows/6" | TEMP. (F) | SAMPLE #   | SAMPLE TYPE | USCS | GRAPHIC LOG | DESCRIPTION  | DEPTH (FEET) |
|----------|-----------|------------|-------------|------|-------------|--|--------------|
|          |           |            |             | ML   |             | Dark yellowish-brown, damp, med. stiff, silt. No creosote odor.  | 50           |
| 7/8/16   | 155       | B94(00)-55 | T           |      |             |  | 60           |
| 12/12/13 | 157       | B94(00)-60 | T           | SM   |             | Dark yellowish-brown, wet, med. dense, silty fine-coarse sand with trace pebbles. Very slight creosote odor. | 70           |
| 4/6/8    | 148       | B94(00)-70 | T           | ML   |             | Dark yellowish-brown, moist, very stiff, clayey, sandy silt. No creosote odor.                               | 80           |
| 2/2/3    | 137       | B94(00)-80 | T           | SM   |             | Pale yellowish-brown, wet, loose, silty fine-coarse sand. No odor.   | 90           |
| 3/3/3    | 134       | B94(00)-90 | T           |      |             |  | 100          |



WELL  
CONSTRUCTION

## SAMPLE DATA

## SOIL TYPE

BORING NO. **B-94(00)**

COOR./EL. 363996.84N 1918387.56E/334.36'

PROJECT VISALIA POLE YARD POST-STEAM BORINGS

#### DRILLING METHOD **8" Hollow Stem Auger**

DATE DRILLED 9/14-15/00 LOGGED BY RSWeidner

## **DESCRIPTION**

DEPTH (FEET)

# **APPENDIX B**

## **LABORATORY REPORTS**



September 29, 2000

Randy Weidner  
Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Subject: **Calscience Work Order No.: 00-09-0517**  
**Client Reference: SCE VPY Steam Remediation**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 09/15/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

A handwritten signature in black ink that appears to read "William H. Christensen".

Calscience Environmental  
Laboratories, Inc.  
William H. Christensen  
Quality Assurance Manager

A handwritten signature in black ink that appears to read "William H. Christensen".

William H. Christensen  
Quality Assurance Manager

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0517  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 1 of 10

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-10           | 00-09-0517-1       | 09/11/00        | Solid   | 09/19/00       | 09/20/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.17   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.16   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-MethylNaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-MethylNaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 104     | 31-142         |      | Phenol-d6        | 109     | 30-136         |      |
| Nitrobenzene-d5      | 101     | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 103     | 24-152         |      | p-Terphenyl-d14  | 114     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-20           | 00-09-0517-2       | 09/11/00        | Solid   | 09/19/00       | 09/20/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 112     | 31-142         |      | Phenol-d6        | 113     | 30-136         |      |
| Nitrobenzene-d5      | 104     | 28-139         |      | 2-Fluorobiphenyl | 93      | 33-144         |      |
| 2,4,6-Tribromophenol | 103     | 24-152         |      | p-Terphenyl-d14  | 113     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-30           | 00-09-0517-3       | 09/11/00        | Solid   | 09/19/00       | 09/20/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | 0.47   | 0.50 | 1  | J    | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 102     | 31-142         |      | Phenol-d6        | 106     | 30-136         |      |
| Nitrobenzene-d5      | 95      | 28-139         |      | 2-Fluorobiphenyl | 88      | 33-144         |      |
| 2,4,6-Tribromophenol | 92      | 24-152         |      | p-Terphenyl-d14  | 100     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-35           | 00-09-0517-4       | 09/11/00        | Solid   | 09/19/00       | 09/20/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 113     | 31-142         |      | Phenol-d6        | 114     | 30-136         |      |
| Nitrobenzene-d5      | 104     | 28-139         |      | 2-Fluorobiphenyl | 95      | 33-144         |      |
| 2,4,6-Tribromophenol | 104     | 24-152         |      | p-Terphenyl-d14  | 113     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-40           | 00-09-0517-5       | 09/11/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 111     | 31-142         |      | Phenol-d6        | 113     | 30-136         |      |
| Nitrobenzene-d5      | 104     | 28-139         |      | 2-Fluorobiphenyl | 95      | 33-144         |      |
| 2,4,6-Tribromophenol | 102     | 24-152         |      | p-Terphenyl-d14  | 109     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-45           | 00-09-0517-6       | 09/11/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 113     | 31-142         |      | Phenol-d6        | 117     | 30-136         |      |
| Nitrobenzene-d5      | 105     | 28-139         |      | 2-Fluorobiphenyl | 95      | 33-144         |      |
| 2,4,6-Tribromophenol | 102     | 24-152         |      | p-Terphenyl-d14  | 114     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-50           | 00-09-0517-7       | 09/11/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 1.7    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.46   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.21   | 0.40 | 1  | J    | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 111     | 31-142         |      | Phenol-d6        | 113     | 30-136         |      |
| Nitrobenzene-d5      | 103     | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 98      | 24-152         |      | p-Terphenyl-d14  | 106     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-55           | 00-09-0517-8       | 09/11/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 110     | 31-142         |      | Phenol-d6        | 112     | 30-136         |      |
| Nitrobenzene-d5      | 101     | 28-139         |      | 2-Fluorobiphenyl | 92      | 33-144         |      |
| 2,4,6-Tribromophenol | 101     | 24-152         |      | p-Terphenyl-d14  | 106     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0517  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 9 of 10

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-75(00)-60           | 00-09-0517-9       | 09/11/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 111     | 31-142         |      | Phenol-d6        | 111     | 30-136         |      |
| Nitrobenzene-d5      | 103     | 28-139         |      | 2-Fluorobiphenyl | 92      | 33-144         |      |
| 2,4,6-Tribromophenol | 99      | 24-152         |      | p-Terphenyl-d14  | 106     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0517  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 10 of 10

| Client Sample Number:        | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared:   | Date Analyzed: | QC Batch ID:                |        |      |    |      |       |
|------------------------------|--------------------|-----------------|---------|------------------|----------------|-----------------------------|--------|------|----|------|-------|
| Method Blank                 | 099-04-010-775     | N/A             | Solid   | 09/19/00         | 09/20/00       | 0009195                     |        |      |    |      |       |
| Parameter                    | Result             | RL              | DF      | Qual             | Units          | Parameter                   | Result | RL   | DF | Qual | Units |
| N-Nitrosodimethylamine       | ND                 | 0.50            | 1       |                  | mg/kg          | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND                 | 0.50            | 1       |                  | mg/kg          | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND                 | 0.50            | 1       |                  | mg/kg          | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND                 | 2.5             | 1       |                  | mg/kg          | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND                 | 0.50            | 1       |                  | mg/kg          | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND                 | 0.50            | 1       |                  | mg/kg          | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND                 | 0.50            | 1       |                  | mg/kg          | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND                 | 0.50            | 1       |                  | mg/kg          | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND                 | 0.50            | 1       |                  | mg/kg          | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND                 | 0.50            | 1       |                  | mg/kg          | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND                 | 0.50            | 1       |                  | mg/kg          | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND                 | 0.50            | 1       |                  | mg/kg          | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND                 | 0.50            | 1       |                  | mg/kg          | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND                 | 0.50            | 1       |                  | mg/kg          | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND                 | 2.5             | 1       |                  | mg/kg          | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND                 | 0.50            | 1       |                  | mg/kg          | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND                 | 0.50            | 1       |                  | mg/kg          | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND                 | 0.50            | 1       |                  | mg/kg          | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND                 | 2.5             | 1       |                  | mg/kg          | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND                 | 0.50            | 1       |                  | mg/kg          | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND                 | 0.50            | 1       |                  | mg/kg          | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND                 | 0.50            | 1       |                  | mg/kg          | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND                 | 0.40            | 1       |                  | mg/kg          | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND                 | 0.50            | 1       |                  | mg/kg          | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND                 | 0.50            | 1       |                  | mg/kg          | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND                 | 0.50            | 1       |                  | mg/kg          | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND                 | 0.40            | 1       |                  | mg/kg          | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND                 | 0.40            | 1       |                  | mg/kg          | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND                 | 1.5             | 1       |                  | mg/kg          | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND                 | 0.50            | 1       |                  | mg/kg          | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND                 | 0.50            | 1       |                  | mg/kg          | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND                 | 0.50            | 1       |                  | mg/kg          | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND                 | 0.50            | 1       |                  | mg/kg          | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND                 | 0.40            | 1       |                  | mg/kg          | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND                 | 0.50            | 1       |                  | mg/kg          | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND                 | 0.40            | 1       |                  | mg/kg          |                             |        |      |    |      |       |
| Surrogates:                  | REC (%)            | Control Limits  | Qual    | Surrogates:      | REC (%)        | Control Limits              | Qual   |      |    |      |       |
| 2-Fluorophenol               | 106                | 31-142          |         | Phenol-d6        | 111            | 30-136                      |        |      |    |      |       |
| Nitrobenzene-d5              | 100                | 28-139          |         | 2-Fluorobiphenyl | 94             | 33-144                      |        |      |    |      |       |
| 2,4,6-Tribromophenol         | 106                | 24-152          |         | p-Terphenyl-d14  | 97             | 23-160                      |        |      |    |      |       |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**Quality Control - Spike/Spike Duplicate**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|------------------|--------|------------|---------------|---------------|---------------------|
| B-75(00)-10      | Solid  | GC/MS/F    | 09/19/00      | 09/20/00      | 000905171           |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 88      | 107      | 53-118  | 19  | 0-19   |            |
| 2-Chlorophenol             | 94      | 112      | 60-119  | 18  | 0-18   |            |
| 1,4-Dichlorobenzene        | 90      | 105      | 56-131  | 16  | 0-18   |            |
| N-Nitroso-di-n-propylamine | 96      | 99       | 64-123  | 4   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 87      | 101      | 52-144  | 15  | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 98      | 113      | 45-135  | 14  | 0-20   |            |
| Acenaphthene               | 87      | 100      | 45-152  | 14  | 0-18   |            |
| 4-Nitrophenol              | 80      | 92       | 45-135  | 14  | 0-20   |            |
| 2,4-Dinitrotoluene         | 86      | 99       | 42-128  | 14  | 0-23   |            |
| Pentachlorophenol          | 94      | 112      | 45-135  | 17  | 0-20   |            |
| Pyrene                     | 101     | 120      | 45-135  | 17  | 0-20   |            |

**Quality Control - LCS/LCS Duplicate**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0517  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-775    | Solid  | GC/MS F    | 09/19/00      | 09/20/00      | 0009195               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 104      | 109       | 67-118  | 4   | 0-24   |            |
| 2-Chlorophenol             | 107      | 115       | 72-119  | 7   | 0-24   |            |
| 1,4-Dichlorobenzene        | 101      | 108       | 69-118  | 6   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 95       | 99        | 70-112  | 4   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 99       | 105       | 65-135  | 7   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 113      | 120       | 45-135  | 6   | 0-20   |            |
| Acenaphthene               | 99       | 106       | 61-142  | 7   | 0-25   |            |
| 4-Nitrophenol              | 98       | 112       | 45-135  | 14  | 0-20   |            |
| 2,4-Dinitrotoluene         | 97       | 108       | 47-137  | 11  | 0-24   |            |
| Pentachlorophenol          | 109      | 123       | 45-135  | 12  | 0-20   |            |
| Pyrene                     | 103      | 111       | 45-135  | 7   | 0-20   |            |



## GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-09-0517

| <u>Qualifier</u> | <u>Definition</u>  |
|------------------|--|
| J                | Analyte was detected at a concentration below the reporting limit.<br>Reported value is estimated. |
| ND               | Not detected at indicated reporting limit.   |

## SCE - ROSEMEAD, CA

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

## CHAIN OF CUSTODY RECORD

Date 9/11/00

Page 1 of 1

|  |                     |                          |           |  |  |
|--|---------------------|--------------------------|-----------|--|--|
| LABORATORY CLIENT: Southern California Edison Co.  |                     |                          |           |  |  |
| ADDRESS: 2244 Walnut Grove Avenue  |                     |                          |           |  |  |
| CITY Rosemead,   |                     | STATE CA                 | ZIP 91770 |  |  |
| TEL: 626 / 302-4033  | FAX: 626 / 302-9730 | E-MAIL: WEIDNER@ sce.com |           |  |  |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HRS <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |                     |                          |           |  |  |
| SPECIAL INSTRUCTIONS   |                     |                          |           |  |  |

|  |   |
|--|---|
| SCE PROJECT NAME / NUMBER:<br>VISALIA STEAM REMEDIATION PROJ | P.O. NO.:   |
| PROJECT CONTACT:<br>RANDY WEIDNER                            | QUOTE NO.:  |
| SAMPLER(S) (SIGNATURE)<br><i>Randy Weidner</i>               | LAB USE ONLY<br><input type="checkbox"/> Q - <input type="checkbox"/> C - <input type="checkbox"/> S - <input type="checkbox"/> I |

| REQUESTED ANALYSES |             |                      |          |         |              |
|--------------------|-------------|----------------------|----------|---------|--------------|
| LAB USE ONLY       | SAMPLE ID   | LOCATION/DESCRIPTION | SAMPLING | MATRIX  | NO. OF CONT. |
|                    |             |                      | DATE     | TIME    |              |
|                    | B-75(00)-10 |                      | 9/11/00  | 12:35 P | S 1          |
|                    | B-75(00)-20 |                      |          | 12:45   | S            |
|                    | -30         |                      |          | 12:55 P | S            |
|                    | -35         |                      |          | 1:05 P  | S            |
|                    | -40         |                      |          | 1:14 P  | S            |
|                    | -45         |                      |          | 1:20 P  | S            |
|                    | -50         |                      |          | 1:30 P  | S            |
|                    | -55         |                      |          | 1:40 P  | S            |
|                    | -60         |                      |          | 1:50 P  | S V          |

|  |   |                |               |
|--|---|----------------|---------------|
| Relinquished by: (Signature)<br><i>Randy Weidner</i> | Received by: (Signature)                                  | Date: 9/15/00  | Time: 1:30 PM |
| Relinquished by: (Signature)                         | Received by: (Signature)                                  | Date:          | Time:         |
| Relinquished by: (Signature)                         | Received for Laboratory by: (Signature)<br><i>R. Tamm</i> | Date: 09/15/00 | Time: 1:30    |

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE



September 29, 2000

Randy Weidner  
Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Subject: **Calscience Work Order No.: 00-09-0520**  
**Client Reference: SCE VPY Steam Remediation**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 09/15/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

A handwritten signature in black ink that appears to read "William H. Christensen".

Calscience Environmental  
Laboratories, Inc.  
William H. Christensen  
Quality Assurance Manager

A handwritten signature in black ink that appears to read "William H. Christensen".

William H. Christensen  
Quality Assurance Manager

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-5      | 00-09-0520-1       | 09/12/00        | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 78      | 31-142         |      | Phenol-d6        | 77      | 30-136         |      |
| Nitrobenzene-d5      | 73      | 28-139         |      | 2-Fluorobiphenyl | 87      | 33-144         |      |
| 2,4,6-Tribromophenol | 86      | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-10     | 00-09-0520-2       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | 0.24   | 0.50 | 1  | J    | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.15   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.29   | 0.40 | 1  | J    | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 79      | 31-142         |      | Phenol-d6        | 79      | 30-136         |      |
| Nitrobenzene-d5      | 78      | 28-139         |      | 2-Fluorobiphenyl | 86      | 33-144         |      |
| 2,4,6-Tribromophenol | 96      | 24-152         |      | p-Terphenyl-d14  | 94      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-15     | 00-09-0520-3       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF    | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|-------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1     |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1     |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 1.8    | 0.5  | 1     |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1     |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1     |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1     |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1     |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1     |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1     |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1     |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1     |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1     |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1     |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1     |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1     |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 250  | 100 D |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 220    | 40   | 100 D |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.25   | 0.40 | 1 J   |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1     |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 11     | 0.40 | 1     |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1     |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 3.8    | 0.4  | 1     |      | mg/kg |
| Naphthalene                  | 6.6    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1     |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1     |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1     |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.12   | 0.40 | 1 J   |      | mg/kg |
| 2-Methylnaphthalene          | 7.8    | 0.4  | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1     |      | mg/kg |
| 1-Methylnaphthalene          | 4.9    | 0.4  | 1  |      | mg/kg | Chrysene                    | 3.5    | 0.4  | 1     |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1     |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.63   | 0.40 | 1     |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.65   | 0.40 | 1     |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.53   | 0.35 | 1     |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1     |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1     |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1     |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |       |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 74      | 31-142         |      | Phenol-d6        | 72      | 30-136         |      |
| Nitrobenzene-d5      | 71      | 28-139         |      | 2-Fluorobiphenyl | 85      | 33-144         |      |
| 2,4,6-Tribromophenol | 90      | 24-152         |      | p-Terphenyl-d14  | 84      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-20     | 00-09-0520-4       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF    | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|-------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1     |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1     |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 10     | 0.50 | 1     |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1     |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1     |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1     |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1     |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1     |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1     |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1     |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1     |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1     |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1     |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1     |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1     |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 250  | 100 D |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 89     | 40   | 100 D |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 1.5    | 0.4  | 1     |      | mg/kg |
| Benzoic Acid                 | 0.34   | 2.5  | 1  | J    | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1     |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 11     | 0.40 | 1     |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1     |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 8.9    | 0.4  | 1     |      | mg/kg |
| Naphthalene                  | 7.5    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1     |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1     |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1     |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.3    | 0.4  | 1     |      | mg/kg |
| 2-Methylnaphthalene          | 16     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1     |      | mg/kg |
| 1-Methylnaphthalene          | 13     | 0.40 | 1  |      | mg/kg | Chrysene                    | 4.1    | 0.4  | 1     |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1     |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.64   | 0.40 | 1     |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.3    | 0.4  | 1     |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.62   | 0.35 | 1     |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.14   | 0.40 | 1 J   |      | mg/kg |
| Acenaphthylene               | 0.26   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | 0.33   | 0.40 | 1 J   |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.15   | 0.40 | 1 J   |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |       |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 68      | 31-142         |      | Phenol-d6        | 65      | 30-136         |      |
| Nitrobenzene-d5      | 65      | 28-139         |      | 2-Fluorobiphenyl | 66      | 33-144         |      |
| 2,4,6-Tribromophenol | 80      | 24-152         |      | p-Terphenyl-d14  | 79      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-25     | 00-09-0520-5       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.79   | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 270    | 130  | 50 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 66     | 20   | 50 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 1.3    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 12     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 6.1    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 0.27   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.34   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | 0.29   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.17   | 0.40 | 1  | J    | mg/kg | Chrysene                    | 4.0    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.72   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.85   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.61   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | 0.64   | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 71      | 31-142         |      | Phenol-d6        | 68      | 30-136         |      |
| Nitrobenzene-d5      | 68      | 28-139         |      | 2-Fluorobiphenyl | 78      | 33-144         |      |
| 2,4,6-Tribromophenol | 81      | 24-152         |      | p-Terphenyl-d14  | 75      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-30     | 00-09-0520-6       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 8.6    | 0.5  | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 140    | 130  | 50 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 270    | 20   | 50 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 88     | 20   | 50 | D    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 9.4    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 5.6    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.3    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.16   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 3.4    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.73   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.78   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.66   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.33   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.12   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 65      | 31-142         |      | Phenol-d6        | 62      | 30-136         |      |
| Nitrobenzene-d5      | 61      | 28-139         |      | 2-Fluorobiphenyl | 68      | 33-144         |      |
| 2,4,6-Tribromophenol | 100     | 24-152         |      | p-Terphenyl-d14  | 62      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-35     | 00-09-0520-7       | 09/12/00        | Solid   | 09/19/00       | 09/27/00       | 0009194      |

| Parameter                    | Result | RL  | DF  | Qual | Units | Parameter                   | Result | RL  | DF    | Qual | Units |
|------------------------------|--------|-----|-----|------|-------|-----------------------------|--------|-----|-------|------|-------|
| N-Nitrosodimethylamine       | ND     | 2.5 | 5   |      | mg/kg | 2,4-Dinitrophenol           | ND     | 13  | 5     |      | mg/kg |
| Aniline                      | ND     | 2.5 | 5   |      | mg/kg | 4-Nitrophenol               | ND     | 2.5 | 5     |      | mg/kg |
| Phenol                       | ND     | 2.5 | 5   |      | mg/kg | Dibenzofuran                | 54     | 2   | 5     |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 13  | 5   |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 2.5 | 5     |      | mg/kg |
| 2-Chlorophenol               | ND     | 2.5 | 5   |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 2.5 | 5     |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 2.5 | 5   |      | mg/kg | Diethyl Phthalate           | ND     | 2.5 | 5     |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 2.5 | 5   |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 2.5 | 5     |      | mg/kg |
| Benzyl Alcohol               | ND     | 2.5 | 5   |      | mg/kg | Fluorene                    | ND     | 2.0 | 5     |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 2.5 | 5   |      | mg/kg | 4-Nitroaniline              | ND     | 2.5 | 5     |      | mg/kg |
| 2-Methylphenol               | ND     | 2.5 | 5   |      | mg/kg | Azobenzene                  | ND     | 2.5 | 5     |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 2.5 | 5   |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 13  | 5     |      | mg/kg |
| 3/4-Methylphenol             | ND     | 2.5 | 5   |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 2.5 | 5     |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 2.5 | 5   |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 2.5 | 5     |      | mg/kg |
| Hexachloroethane             | ND     | 2.5 | 5   |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 2.5 | 5     |      | mg/kg |
| Nitrobenzene                 | ND     | 13  | 5   |      | mg/kg | Hexachlorobenzene           | ND     | 2.5 | 5     |      | mg/kg |
| Isophorone                   | ND     | 2.5 | 5   |      | mg/kg | Pentachlorophenol           | ND     | 13  | 5     |      | mg/kg |
| 2-Nitrophenol                | ND     | 2.5 | 5   |      | mg/kg | Phenanthrene                | 1100   | 40  | 100 D |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 2.5 | 5   |      | mg/kg | Anthracene                  | 1200   | 40  | 100 D |      | mg/kg |
| Benzoic Acid                 | ND     | 13  | 5   |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 2.5 | 5     |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 2.5 | 5   |      | mg/kg | Fluoranthene                | 230    | 40  | 100 D |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 2.5 | 5   |      | mg/kg | Benzidine                   | ND     | 50  | 5     |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 2.5 | 5   |      | mg/kg | Pyrene                      | 67     | 2   | 5     |      | mg/kg |
| Naphthalene                  | ND     | 2.0 | 5   |      | mg/kg | Pyridine                    | ND     | 2.5 | 5     |      | mg/kg |
| 4-Chloroaniline              | ND     | 2.5 | 5   |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 2.5 | 5     |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 2.5 | 5   |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 2.5 | 5     |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 2.5 | 5   |      | mg/kg | Benzo (a) Anthracene        | 13     | 2   | 5     |      | mg/kg |
| 2-Methylnaphthalene          | 9.6    | 2.0 | 5   |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 2.5 | 5     |      | mg/kg |
| 1-Methylnaphthalene          | 9.4    | 2.0 | 5   |      | mg/kg | Chrysene                    | 26     | 2   | 5     |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 7.5 | 5   |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 2.5 | 5     |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 2.5 | 5   |      | mg/kg | Benzo (b) Fluoranthene      | 6.4    | 2.0 | 5     |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 2.5 | 5   |      | mg/kg | Benzo (k) Fluoranthene      | 8.1    | 2.0 | 5     |      | mg/kg |
| 2-Nitroaniline               | ND     | 2.5 | 5   |      | mg/kg | Benzo (a) Pyrene            | 0.63   | 1.8 | 5 J   |      | mg/kg |
| Dimethyl Phthalate           | ND     | 2.5 | 5   |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 2.0 | 5     |      | mg/kg |
| Acenaphthylene               | 0.80   | 2.0 | 5 J |      | mg/kg | Dibenz (a,h) Anthracene     | 0.51   | 2.0 | 5 J   |      | mg/kg |
| 3-Nitroaniline               | ND     | 2.5 | 5   |      | mg/kg | Benzo (g,h,i) Perylene      | 1.3    | 2.0 | 5 J   |      | mg/kg |
| Acenaphthene                 | 22     | 2   | 5   |      | mg/kg |                             |        |     |       |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 55      | 31-142         |      | Phenol-d6        | 51      | 30-136         |      |
| Nitrobenzene-d5      | 53      | 28-139         |      | 2-Fluorobiphenyl | 67      | 33-144         |      |
| 2,4,6-Tribromophenol | 57      | 24-152         |      | p-Terphenyl-d14  | 53      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-40     | 00-09-0520-8       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 25     | 25   | 10 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 77     | 4    | 10 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 110    | 4    | 10 | D    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 120    | 4    | 10 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 110    | 4    | 10 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 4.2    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 7.1    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.2    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 2.3    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.1    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.33   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.19   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 63      | 31-142         |      | Phenol-d6        | 59      | 30-136         |      |
| Nitrobenzene-d5      | 58      | 28-139         |      | 2-Fluorobiphenyl | 64      | 33-144         |      |
| 2,4,6-Tribromophenol | 57      | 24-152         |      | p-Terphenyl-d14  | 60      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-45     | 00-09-0520-9       | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF  | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|-----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1   |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1   |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.15   | 0.50 | 1   | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1   |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.23   | 0.40 | 1   | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1   |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1   |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1   |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1   |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1   |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 500  | 200 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 82     | 80   | 200 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 2000   | 80   | 200 | D    | mg/kg |
| Benzoic Acid                 | 0.23   | 2.5  | 1  | J    | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 120    | 80   | 200 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1   |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 80   | 200 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 3.1    | 0.4  | 1   |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1   |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 7.2    | 0.4  | 1   |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.73   | 0.40 | 1   |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 2.4    | 0.4  | 1   |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.1    | 0.3  | 1   |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.19   | 0.40 | 1   | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.11   | 0.40 | 1   | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.18   | 0.40 | 1   | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |     |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 60      | 31-142         |      | Phenol-d6        | 56      | 30-136         |      |
| Nitrobenzene-d5      | 50      | 28-139         |      | 2-Fluorobiphenyl | 62      | 33-144         |      |
| 2,4,6-Tribromophenol | 59      | 24-152         |      | p-Terphenyl-d14  | 53      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-50     | 00-09-0520-10      | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 2.6    | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 13     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 7.2    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | 0.18   | 2.5  | 1  | J    | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 150    | 8    | 20 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | 0.16   | 0.50 | 1  | J    | mg/kg | Pyrene                      | 120    | 8    | 20 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 16     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 51     | 8    | 20 | D    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.2    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 5.4    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.56   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.25   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.21   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | 0.12   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.20   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 62      | 31-142         |      | Phenol-d6        | 57      | 30-136         |      |
| Nitrobenzene-d5      | 51      | 28-139         |      | 2-Fluorobiphenyl | 64      | 33-144         |      |
| 2,4,6-Tribromophenol | 65      | 24-152         |      | p-Terphenyl-d14  | 53      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(0D)-55     | 00-09-0520-11      | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 0.50   | 2.5  | 1  | J    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 6.7    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 7.0    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | 0.14   | 2.5  | 1  | J    | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 150    | 8    | 20 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 120    | 8    | 20 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 9.5    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 11     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 2.6    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 3.8    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.5    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.34   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.48   | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.28   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 56      | 31-142         |      | Phenol-d6        | 52      | 30-136         |      |
| Nitrobenzene-d5      | 47      | 28-139         |      | 2-Fluorobiphenyl | 54      | 33-144         |      |
| 2,4,6-Tribromophenol | 53      | 24-152         |      | p-Terphenyl-d14  | 47      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-60     | 00-09-0520-12      | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methyphenol                | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methyphenol              | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.71   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.12   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.43   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 3.4    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 6.3    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.48   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.79   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.15   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 52      | 31-142         |      | Phenol-d6        | 50      | 30-136         |      |
| Nitrobenzene-d5      | 45      | 28-139         |      | 2-Fluorobiphenyl | 57      | 33-144         |      |
| 2,4,6-Tribromophenol | 58      | 24-152         |      | p-Terphenyl-d14  | 57      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-65     | 00-09-0520-13      | 09/12/00        | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.42   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.16   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 1.5    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 1.9    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.94   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 1.6    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.14   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.21   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 82      | 31-142         |      | Phenol-d6        | 81      | 30-136         |      |
| Nitrobenzene-d5      | 78      | 28-139         |      | 2-Fluorobiphenyl | 91      | 33-144         |      |
| 2,4,6-Tribromophenol | 94      | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-70     | 00-09-0520-14      | 09/12/00        | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 15     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.55   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 11     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 9.0    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.44   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.83   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 103     | 31-142         |      | Phenol-d6        | 101     | 30-136         |      |
| Nitrobenzene-d5      | 98      | 28-139         |      | 2-Fluorobiphenyl | 113     | 33-144         |      |
| 2,4,6-Tribromophenol | 121     | 24-152         |      | p-Terphenyl-d14  | 118     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-75     | 00-09-0520-15      | 09/12/00        | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.21   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.39   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 95      | 31-142         |      | Phenol-d6        | 94      | 30-136         |      |
| Nitrobenzene-d5      | 90      | 28-139         |      | 2-Fluorobiphenyl | 110     | 33-144         |      |
| 2,4,6-Tribromophenol | 106     | 24-152         |      | p-Terphenyl-d14  | 114     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-80     | 00-09-0520-16      | 09/12/00        | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 106     | 31-142         |      | Phenol-d6        | 104     | 30-136         |      |
| Nitrobenzene-d5      | 101     | 28-139         |      | 2-Fluorobiphenyl | 118     | 33-144         |      |
| 2,4,6-Tribromophenol | 118     | 24-152         |      | p-Terphenyl-d14  | 123     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-85     | 00-09-0520-17      | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.13   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.16   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.16   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.19   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.12   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.14   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.29   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.43   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.34   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 90      | 31-142         |      | Phenol-d6        | 83      | 30-136         |      |
| Nitrobenzene-d5      | 81      | 28-139         |      | 2-Fluorobiphenyl | 106     | 33-144         |      |
| 2,4,6-Tribromophenol | 101     | 24-152         |      | p-Terphenyl-d14  | 111     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-90     | 00-09-0520-18      | 09/12/00        | Solid   | 09/19/00       | 09/20/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methyphenol              | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.51   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.29   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.78   | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.85   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.42   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.54   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.21   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.41   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.18   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 83      | 31-142         |      | Phenol-d6        | 78      | 30-136         |      |
| Nitrobenzene-d5      | 77      | 28-139         |      | 2-Fluorobiphenyl | 96      | 33-144         |      |
| 2,4,6-Tribromophenol | 96      | 24-152         |      | p-Terphenyl-d14  | 109     | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-95     | 00-09-0520-19      | 09/12/00        | Solid   | 09/19/00       | 09/21/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.41   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.15   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 1.3    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 1.4    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 0.13   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.14   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | 0.40   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.42   | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.17   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.14   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.22   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.16   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 90      | 31-142         |      | Phenol-d6        | 84      | 30-136         |      |
| Nitrobenzene-d5      | 85      | 28-139         |      | 2-Fluorobiphenyl | 107     | 33-144         |      |
| 2,4,6-Tribromophenol | 102     | 24-152         |      | p-Terphenyl-d14  | 119     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 20 of 26

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-100    | 00-09-0520-20      | 09/12/00        | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 100     | 31-142         |      | Phenol-d6        | 98      | 30-136         |      |
| Nitrobenzene-d5      | 94      | 28-139         |      | 2-Fluorobiphenyl | 112     | 33-144         |      |
| 2,4,6-Tribromophenol | 111     | 24-152         |      | p-Terphenyl-d14  | 114     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

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# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-104    | 00-09-0520-21      | 09/12/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.54   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.27   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.73   | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.82   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.35   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.45   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.16   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 113     | 31-142         |      | Phenol-d6        | 119     | 30-136         |      |
| Nitrobenzene-d5      | 111     | 28-139         |      | 2-Fluorobiphenyl | 98      | 33-144         |      |
| 2,4,6-Tribromophenol | 110     | 24-152         |      | p-Terphenyl-d14  | 119     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-110    | 00-09-0520-22      | 09/12/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 13     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 6.2    | 0.4  | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 55     | 4    | 10 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 5.4    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 25     | 4    | 10 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 27     | 4    | 10 | D    | mg/kg |
| Naphthalene                  | 21     | 4    | 10 | D    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 5.1    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 13     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 10     | 0.40 | 1  |      | mg/kg | Chrysene                    | 5.2    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.2    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 2.0    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.6    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | 0.38   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.30   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | 15     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 113     | 31-142         |      | Phenol-d6        | 98      | 30-136         |      |
| Nitrobenzene-d5      | 105     | 28-139         |      | 2-Fluorobiphenyl | 89      | 33-144         | D    |
| 2,4,6-Tribromophenol | 116     | 24-152         |      | p-Terphenyl-d14  | 109     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-115    | 00-09-0520-23      | 09/12/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF   | Qual | Units | Parameter                   | Result | RL   | DF   | Qual | Units |
|------------------------------|--------|------|------|------|-------|-----------------------------|--------|------|------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1    |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1    |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1    |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1    |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1    |      | mg/kg | Dibenzofuran                | 41     | 10   | 20 D |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1    |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1    |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1    |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1    |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1    |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1    |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1    |      | mg/kg | Fluorene                    | 2.7    | 0.4  | 1    |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1    |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1    |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1    |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1    |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1    |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1    |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1    |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1    |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1    |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1    |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1    |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1    |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1    |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1    |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1    |      | mg/kg | Phenanthrene                | 140    | 8    | 20 D |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1    |      | mg/kg | Anthracene                  | 8.1    | 0.4  | 1    |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1    |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1    |      | mg/kg | Fluoranthene                | 65     | 8    | 20 D |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1    |      | mg/kg | Benzidine                   | ND     | 10   | 1    |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1    |      | mg/kg | Pyrene                      | 70     | 8    | 20 D |      | mg/kg |
| Naphthalene                  | 73     | 8    | 20 D |      | mg/kg | Pyridine                    | ND     | 0.50 | 1    |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1    |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1    |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1    |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1    |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1    |      | mg/kg | Benzo (a) Anthracene        | 13     | 0.40 | 1    |      | mg/kg |
| 2-Methylnaphthalene          | 49     | 8    | 20 D |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1    |      | mg/kg |
| 1-Methylnaphthalene          | 28     | 8    | 20 D |      | mg/kg | Chrysene                    | 15     | 0.40 | 1    |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1    |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1    |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1    |      | mg/kg | Benzo (b) Fluoranthene      | 3.6    | 0.4  | 1    |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1    |      | mg/kg | Benzo (k) Fluoranthene      | 5.2    | 0.4  | 1    |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1    |      | mg/kg | Benzo (a) Pyrene            | 4.1    | 0.3  | 1    |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1    |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1    |      | mg/kg |
| Acenaphthylene               | 1.5    | 0.4  | 1    |      | mg/kg | Dibenz (a,h) Anthracene     | 0.14   | 0.40 | 1 J  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1    |      | mg/kg | Benzo (g,h,i) Perylene      | 0.72   | 0.40 | 1    |      | mg/kg |
| Acenaphthene                 | 24     | 8    | 20 D |      | mg/kg |                             |        |      |      |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 117     | 31-142         |      | Phenol-d6        | 92      | 30-136         | D    |
| Nitrobenzene-d5      | 120     | 28-139         |      | 2-Fluorobiphenyl | 91      | 33-144         |      |
| 2,4,6-Tribromophenol | 63      | 24-152         | D    | p-Terphenyl-d14  | 110     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| MW-34/B-19(00)-120    | 00-09-0520-24      | 09/12/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF   | Qual | Units | Parameter                   | Result | RL   | DF   | Qual | Units |
|------------------------------|--------|------|------|------|-------|-----------------------------|--------|------|------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1    |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1    |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1    |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1    |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1    |      | mg/kg | Dibenzofuran                | 15     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1    |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1    |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1    |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1    |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1    |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1    |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1    |      | mg/kg | Fluorene                    | 1.0    | 0.4  | 1    |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1    |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1    |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1    |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1    |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1    |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1    |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1    |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1    |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1    |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1    |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1    |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1    |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1    |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1    |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1    |      | mg/kg | Phenanthrene                | 56     | 4    | 10 D |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1    |      | mg/kg | Anthracene                  | 3.1    | 0.4  | 1    |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1    |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1    |      | mg/kg | Fluoranthene                | 22     | 4    | 10 D |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1    |      | mg/kg | Benzidine                   | ND     | 10   | 1    |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1    |      | mg/kg | Pyrene                      | 25     | 4    | 10 D |      | mg/kg |
| Naphthalene                  | 37     | 4    | 10 D |      | mg/kg | Pyridine                    | ND     | 0.50 | 1    |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1    |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1    |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1    |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1    |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1    |      | mg/kg | Benzo (a) Anthracene        | 4.5    | 0.4  | 1    |      | mg/kg |
| 2-Methylnaphthalene          | 21     | 4    | 10 D |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1    |      | mg/kg |
| 1-Methylnaphthalene          | 13     | 0.40 | 1    |      | mg/kg | Chrysene                    | 5.0    | 0.4  | 1    |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1    |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1    |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1    |      | mg/kg | Benzo (b) Fluoranthene      | 1.3    | 0.4  | 1    |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1    |      | mg/kg | Benzo (k) Fluoranthene      | 1.6    | 0.4  | 1    |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1    |      | mg/kg | Benzo (a) Pyrene            | 1.3    | 0.3  | 1    |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1    |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1    |      | mg/kg |
| Acenaphthylene               | 0.54   | 0.40 | 1    |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1    |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1    |      | mg/kg | Benzo (g,h,i) Perylene      | 0.20   | 0.40 | 1 J  |      | mg/kg |
| Acenaphthene                 | 9.1    | 0.4  | 1    |      | mg/kg |                             |        |      |      |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 108     | 31-142         |      | Phenol-d6        | 113     | 30-136         |      |
| Nitrobenzene-d5      | 106     | 28-139         |      | 2-Fluorobiphenyl | 87      | 33-144         |      |
| 2,4,6-Tribromophenol | 116     | 24-152         |      | p-Terphenyl-d14  | 109     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 25 of 26

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-775     | N/A             | Solid   | 09/19/00       | 09/20/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 106     | 31-142         |      | Phenol-d6        | 111     | 30-136         |      |
| Nitrobenzene-d5      | 100     | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 106     | 24-152         |      | p-Terphenyl-d14  | 97      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0520  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 26 of 26

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-785     | N/A             | Solid   | 09/19/00       | 09/22/00       | 0009194      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 78      | 31-142         |      | Phenol-d6        | 78      | 30-136         |      |
| Nitrobenzene-d5      | 75      | 28-139         |      | 2-Fluorobiphenyl | 90      | 33-144         |      |
| 2,4,6-Tribromophenol | 95      | 24-152         |      | p-Terphenyl-d14  | 95      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers



## Quality Control - Spike/Spike Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|------------------|--------|------------|---------------|---------------|---------------------|
| 00-09-0517-1     | Solid  | GC/MS F    | 09/19/00      | 09/20/00      | 000905171           |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 88      | 107      | 53-118  | 19  | 0-19   |            |
| 2-Chlorophenol             | 94      | 112      | 60-119  | 18  | 0-18   |            |
| 1,4-Dichlorobenzene        | 90      | 105      | 56-131  | 16  | 0-18   |            |
| N-Nitroso-di-n-propylamine | 96      | 99       | 64-123  | 4   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 87      | 101      | 52-144  | 15  | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 98      | 113      | 45-135  | 14  | 0-20   |            |
| Acenaphthene               | 87      | 100      | 45-152  | 14  | 0-18   |            |
| 4-Nitrophenol              | 80      | 92       | 45-135  | 14  | 0-20   |            |
| 2,4-Dinitrotoluene         | 86      | 99       | 42-128  | 14  | 0-23   |            |
| Pentachlorophenol          | 94      | 112      | 45-135  | 17  | 0-20   |            |
| Pyrene                     | 101     | 120      | 45-135  | 17  | 0-20   |            |

**Quality Control - Spike/Spike Duplicate**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID  | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|-------------------|--------|------------|---------------|---------------|---------------------|
| MW-34/B-19(00)-45 | Solid  | GC/MS H    | 09/19/00      | 09/26/00      | 000905209           |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 46      | 47       | 53-118  | 4   | 0-19   | X          |
| 2-Chlorophenol             | 45      | 46       | 60-119  | 3   | 0-18   | X          |
| 1,4-Dichlorobenzene        | 44      | 45       | 56-131  | 3   | 0-18   | X          |
| N-Nitroso-di-n-propylamine | 50      | 53       | 64-123  | 5   | 0-18   | X          |
| 1,2,4-Trichlorobenzene     | 43      | 46       | 52-144  | 5   | 0-17   | X          |
| 4-Chloro-3-Methylphenol    | 51      | 28       | 45-135  | 58  | 0-20   | X          |
| Acenaphthene               | 38      | 206      | 45-152  | 137 | 0-18   | X          |
| 4-Nitrophenol              | 294     | 822      | 45-135  | 95  | 0-20   | X          |
| Pentachlorophenol          | 6650    | 4560     | 45-135  | 37  | 0-20   | X          |
| Pyrene                     | 99      | 99       | 45-135  | 1   | 0-20   |            |



## Quality Control - LCS/LCS Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-775    | Solid  | GC/MS F    | 09/19/00      | 09/20/00      | 0009195               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 104      | 109       | 67-118  | 4   | 0-24   |            |
| 2-Chlorophenol             | 107      | 115       | 72-119  | 7   | 0-24   |            |
| 1,4-Dichlorobenzene        | 101      | 108       | 69-118  | 6   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 95       | 99        | 70-112  | 4   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 99       | 105       | 65-135  | 7   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 113      | 120       | 45-135  | 6   | 0-20   |            |
| Acenaphthene               | 99       | 106       | 61-142  | 7   | 0-25   |            |
| 4-Nitrophenol              | 98       | 112       | 45-135  | 14  | 0-20   |            |
| 2,4-Dinitrotoluene         | 97       | 108       | 47-137  | 11  | 0-24   |            |
| Pentachlorophenol          | 109      | 123       | 45-135  | 12  | 0-20   |            |
| Pyrene                     | 103      | 111       | 45-135  | 7   | 0-20   |            |

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0520  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-785    | Solid  | GC/MS H    | 09/19/00      | 09/22/00      | 0009194               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 88       | 95        | 67-118  | 7   | 0-24   |            |
| 2-Chlorophenol             | 84       | 90        | 72-119  | 7   | 0-24   |            |
| 1,4-Dichlorobenzene        | 90       | 97        | 69-118  | 7   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 87       | 90        | 70-112  | 3   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 98       | 106       | 65-135  | 8   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 102      | 111       | 45-135  | 8   | 0-20   |            |
| Acenaphthene               | 99       | 107       | 61-142  | 8   | 0-25   |            |
| 4-Nitrophenol              | 86       | 95        | 45-135  | 10  | 0-20   |            |
| 2,4-Dinitrotoluene         | 88       | 95        | 47-137  | 8   | 0-24   |            |
| Pentachlorophenol          | 80       | 92        | 45-135  | 13  | 0-20   |            |
| Pyrene                     | 100      | 109       | 45-135  | 9   | 0-20   |            |



## GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-09-0520

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| <u>Qualifier</u> | <u>Definition</u>  |
|------------------|--|
| D                | The sample data was reported from a diluted analysis.              |
| J                | Analyte was detected at a concentration below the reporting limit. |
|                  | Reported value is estimated.                                       |
| ND               | Not detected at indicated reporting limit.                         |
| X                | % Recovery and/or RPD out-of-range.                                |

SCE ROSEMEAD, CA

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

CHAIN OF CUSTODY RECORD

Date 9/12/00

Page 1 of 3

|  |                        |                                       |  |  |
|--|------------------------|---------------------------------------|--|--|
| LABORATORY CLIENT:   |                        | <b>Southern California Edison Co.</b> |  |  |
| ADDRESS:   |                        | 2244 Walnut Grove Avenue              |  |  |
| CITY   | STATE                  | ZIP                                   |  |  |
| Rosemead, CA   |                        | 91770                                 |  |  |
| TEL:<br>626 / 302-4033   | FAX:<br>626 / 302-9730 | E-MAIL:<br>Weidner@scs.com            |  |  |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HRS <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |                        |                                       |  |  |
| SPECIAL INSTRUCTIONS   |                        |                                       |  |  |

|  |  |   |
|--|--|---|
| SCE PROJECT NAME / NUMBER:<br><b>VISALIA STEAM REMEDIATION PROJECT</b> |  | P.O. NO.:   |
| PROJECT CONTACT:<br><b>RANDY WEIDNER</b>                               |  | QUOTE NO.:  |
| SAMPLER(S): (SIGNATURE)<br><i>Randy Weidner</i>                        |  | LAB USE ONLY<br><input type="checkbox"/> 9 - <input type="checkbox"/> 0 <input type="checkbox"/> 5 <input type="checkbox"/> 2 |

| REQUESTED ANALYSES |  |          |                      |                      |                        |                         |
|--------------------|--|----------|----------------------|----------------------|------------------------|-------------------------|
|                    |  | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | BTEX / MTBE (8021B)     |
|                    |  |          |                      |                      |                        | HALOCARBONS (8021B)     |
|                    |  |          |                      |                      |                        | VOCs (8260B)            |
|                    |  |          |                      |                      |                        | SVOCs (8270C)           |
|                    |  |          |                      |                      |                        | PEST / PCBs (8081A)     |
|                    |  |          |                      |                      |                        | CAC, T22 METALS (6010A) |
|                    |  |          |                      |                      |                        | ICP / MS METALS (6020)  |
|                    |  |          |                      |                      |                        | PNAs (8310)             |
|                    |  |          |                      |                      |                        | VOCS (T0-14)            |

**SAMPLING**

| LAB USE ONLY | SAMPLE ID         | LOCATION/DESCRIPTION | DATE | TIME | MATRIX | NO. OF CONT. |
|--------------|-------------------|----------------------|------|------|--------|--------------|
|              |                   |                      |      |      |        |              |
|              | MW-34/6-79(03) -5 | 9/12/00              | 9:30 | S    | 1      |              |
|              | -10               |                      | 7:40 | S    | 1      |              |
|              | -15               |                      | 7:50 | S    | 1      |              |
|              | -20               |                      | 8:00 | S    | 1      |              |
|              | -25               |                      | 8:05 | S    | 1      |              |
|              | -30               |                      | 8:15 | S    | 1      |              |
|              | -35               |                      | 8:20 | S    | 1      |              |
|              | -40               |                      | 8:26 | S    | 1      |              |
|              | -45               |                      | 8:35 | S    | 1      |              |
|              | -50               |                      | 8:45 | S    | 1      |              |

Relinquished by: (Signature)  
*Randy Weidner*

Received by: (Signature)

Date: 9/15/00 Time: 1:30 pm

Relinquished by: (Signature)

Received by: (Signature)

Date: 9/15/00 Time:

Relinquished by: (Signature)

Received for Laboratory by: (Signature)  
*R. Jones*

Date: 09/15/00 Time: 1330

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

SCE - ROSEMEAD, CA

CHAIN OF CUSTODY RECORD

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

Date 9/12/00

Page 2 of 3

|                                   |                        |                                       |  |
|-----------------------------------|------------------------|---------------------------------------|--|
| LABORATORY CLIENT:                |                        | <b>Southern California Edison Co.</b> |  |
| ADDRESS: 2244 Walnut Grove Avenue |                        |                                       |  |
| CITY                              | STATE                  | ZIP                                   |  |
| Rosemead,                         | CA                     | 91770                                 |  |
| TEL:<br>626 / 302-4033            | FAX:<br>626 / 302-9730 | E-MAIL:<br>Weinert@sce.com            |  |

SCE PROJECT NAME / NUMBER:

**VISALHA STEAM REMEDIATION PROJECT**

P.O. NO.:

PROJECT CONTACT:

**RANDY WEINER**

QUOTE NO.:

SAMPLER(S) SIGNATURE

*Randy Weiner*

LAB USE ONLY

 9 -  5  2  0

## TURNAROUND TIME

 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

## SPECIAL INSTRUCTIONS

## REQUESTED ANALYSES

| LAB<br>USE<br>ONLY | SAMPLE ID         | LOCATION/DESCRIPTION | SAMPLING |       | MATRIX | NO. OF<br>CONT. | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | TPH (g), (d), (o) | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) | SVOCs (8270C) | PEST / PCBs (8081A) | CAC, T22 METALS (6010A) | ICP / MS METALS (6020) | PNAs (8310) | VOCs (TO-14) |
|--------------------|-------------------|----------------------|----------|-------|--------|-----------------|----------|----------------------|----------------------|------------------------|-------------------|---------------------|---------------------|--------------|---------------|---------------------|-------------------------|------------------------|-------------|--------------|
|                    |                   |                      | DATE     | TIME  |        |                 |          |                      |                      |                        |                   |                     |                     |              |               |                     |                         |                        |             |              |
|                    | 14W34/B-19(00)-55 |                      | 9/12     | 8:55  | S      | 1               |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -60               |                      |          | 9:05  |        | 1               |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -65               |                      |          | 9:20  |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -70               |                      |          | 9:35  |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -75               |                      |          | 9:45  |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -80               |                      |          | 9:55  |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -85               |                      |          | 10:07 |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -90               |                      |          | 10:17 |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -95               |                      |          | 10:29 |        |                 |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |
|                    | -100              |                      |          | 10:40 | V      | V               |          |                      |                      |                        |                   |                     | X                   |              |               |                     |                         |                        |             |              |

Relinquished by: (Signature)

Received by: (Signature)

Date: 9/15/00 Time: 1:30 PM

Relinquished by: (Signature)

Received by: (Signature)

Date: Time:

Relinquished by: (Signature)

Received for Laboratory by: (Signature)

Date: 09/15/00 Time: 1:30

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

SCE - ROSEMONT, CA

## **ENVIRONMENTAL AFFAIRS**

**GO1, ROOM 405**

## **CHAIN OF CUSTODY RECORD**

Date 9/12/00

9/12/00

Page 3

|   |                        |                                       |              |  |
|---|------------------------|---------------------------------------|--------------|--|
| LABORATORY CLIENT:  |                        | <b>Southern California Edison Co.</b> |              |  |
| ADDRESS:  |                        | 2244 Walnut Grove Avenue              |              |  |
| CITY  | STATE                  |                                       | ZIP          |  |
| <b>Rosemead,</b>  |                        | <b>CA</b>                             | <b>91770</b> |  |
| TEL:<br>626 / 302- <u>4033</u>  | FAX:<br>626 / 302-9730 | E-MAIL:<br><u>WeidnerS</u> @sce.com   |              |  |
| TURNAROUND TIME   |                        |                                       |              |  |
| <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HRS <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |                        |                                       |              |  |
| SPECIAL INSTRUCTIONS  |                        |                                       |              |  |

|  |   |
|--|---|
| SCE PROJECT NAME / NUMBER:<br><b>VISALIA STEAM REMEDIATION PROJECT</b> | P.O. NO.:   |
| PROJECT CONTACT:<br><b>RANDY WEIDNER</b>                               | QUOTE NO.:  |
| SAMPLER(S): (SIGNATURE)<br><i>Randy Weidner</i>                        | LAB USE ONLY<br><input type="checkbox"/> 9 - <input type="checkbox"/> 5 <input checked="" type="checkbox"/> 2 |
| <b>REQUESTED ANALYSES</b>  |   |
|  | 5.2 (SCE LIST)  |
|  | 70C (SCE LIST)  |
|  | RL = 0.05 ppm   |
|  | (d) (0)   |
|  | MTBE (8021B)  |
|  | ARBONS (8021B)  |
|  | 260B)   |
|  | 8270C)  |
|  | PCBS (8081A)  |
|  | 2 METALS (6010A)  |
|  | S METALS (6020)   |
|  | 310)  |
|  | 0-14)   |

| Parameter      | Approximate Value |
|----------------|-------------------|
| EPA 829        | 10                |
| EPA 522        | 10                |
| EPA 821        | 10                |
| TPH (d)        | 10                |
| TPH (g)        | 10                |
| BTEX / HALOCA  | 10                |
| VOCs (8)       | 10                |
| SVOCs (1)      | 10                |
| PEST / CAC, T2 | 10                |
| ICP / M        | 10                |
| PNAS (8)       | 10                |
| VOCs (T)       | 10                |

**Relinquished by: (Signature)**

Received by: (Signature)

|         |         |
|---------|---------|
| Date:   | Time:   |
| 9/15/00 | 1:30 PM |

**Relinquished by: (Signature)**

**Received by:** (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Relinquished by:** (Signature)

~~Received for Laboratory by: (Signature)~~

|          |       |
|----------|-------|
| Date:    | Time: |
| 09/15/00 | 1330  |

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision



September 29, 2000

Randy Weidner  
Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Subject: **Calscience Work Order No.: 00-09-0519**  
**Client Reference: SCE VPY Steam Remediation**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 09/15/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

A handwritten signature in black ink, appearing to read "William H. Christensen".

Calscience Environmental  
Laboratories, Inc.  
William H. Christensen  
Quality Assurance Manager

A handwritten signature in black ink, appearing to read "William H. Christensen".

William H. Christensen  
Quality Assurance Manager

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 1 of 25

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-5'      | 00-09-0519-1       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitro-di-n-propylamine     | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 92      | 31-142         |      | Phenol-d6        | 87      | 30-136         |      |
| Nitrobenzene-d5      | 85      | 28-139         |      | 2-Fluorobiphenyl | 105     | 33-144         |      |
| 2,4,6-Tribromophenol | 102     | 24-152         |      | p-Terphenyl-d14  | 118     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 2 of 25

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-10'     | 00-09-0519-2       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 0.25   | 2.5  | 1  | J    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 50      | 31-142         |      | Phenol-d6        | 48      | 30-136         |      |
| Nitrobenzene-d5      | 47      | 28-139         |      | 2-Fluorobiphenyl | 58      | 33-144         |      |
| 2,4,6-Tribromophenol | 54      | 24-152         |      | p-Terphenyl-d14  | 62      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-15'     | 00-09-0519-3       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF    | Qual | Units | Parameter                   | Result | RL   | DF      | Qual | Units |
|------------------------------|--------|------|-------|------|-------|-----------------------------|--------|------|---------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1     |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1       |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1     |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1       |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1     |      | mg/kg | Dibenzofuran                | 0.35   | 0.50 | 1 J     |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1     |      | mg/kg | 2,4-Dinitrotoluene          | 0.29   | 0.50 | 1 J     |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1     |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1       |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1     |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1       |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1     |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1       |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1     |      | mg/kg | Fluorene                    | ND     | 0.40 | 1       |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1     |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1       |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1     |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1       |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1     |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1       |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1     |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1       |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1     |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1       |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1     |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1       |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1     |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1       |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1     |      | mg/kg | Pentachlorophenol           | 240    | 250  | 100 D,J |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1     |      | mg/kg | Phenanthrene                | 0.20   | 0.40 | 1 J     |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1     |      | mg/kg | Anthracene                  | 3.4    | 0.4  | 1       |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1     |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1       |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1     |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1       |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1     |      | mg/kg | Benzidine                   | ND     | 10   | 1       |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1     |      | mg/kg | Pyrene                      | 0.27   | 0.40 | 1 J     |      | mg/kg |
| Naphthalene                  | 9.0    | 0.4  | 1     |      | mg/kg | Pyridine                    | ND     | 0.50 | 1       |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1     |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1       |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1     |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1       |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1     |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1       |      | mg/kg |
| 2-Methylnaphthalene          | 52     | 40   | 100 D |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1       |      | mg/kg |
| 1-Methylnaphthalene          | 46     | 40   | 100 D |      | mg/kg | Chrysene                    | ND     | 0.40 | 1       |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1     |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1       |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1     |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1       |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1     |      | mg/kg | Benzo (k) Fluoranthene      | 0.43   | 0.40 | 1       |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1     |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1       |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1     |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1       |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1     |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1       |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1     |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1       |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1     |      | mg/kg |                             |        |      |         |      | mg/kg |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 75      | 31-142         |      | Phenol-d6        | 69      | 30-136         |      |
| Nitrobenzene-d5      | 54      | 28-139         |      | 2-Fluorobiphenyl | 62      | 33-144         |      |
| 2,4,6-Tribromophenol | 65      | 24-152         |      | p-Terphenyl-d14  | 108     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-20      | 00-09-0519-4       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF  | Qual | Units | Parameter                   | Result | RL   | DF  | Qual | Units |
|------------------------------|--------|------|-----|------|-------|-----------------------------|--------|------|-----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1   |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1   |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1   |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1   |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1   |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1   |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1   |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1   |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1   |      | mg/kg | Fluorene                    | ND     | 0.40 | 1   |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1   |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1   |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1   |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1   |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1   |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1   |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1   |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1   |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1   |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1   |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1   |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1   |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1   |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1   |      | mg/kg | Phenanthrene                | 100    | 200  | 500 | J,D  | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1   |      | mg/kg | Anthracene                  | ND     | 0.40 | 1   |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1   |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1   |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1   |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1   |      | mg/kg | Benzidine                   | ND     | 10   | 1   |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1   |      | mg/kg | Pyrene                      | ND     | 200  | 500 | D    | mg/kg |
| Naphthalene                  | 800    | 200  | 500 | D    | mg/kg | Pyridine                    | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1   |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1   |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1   |      | mg/kg | Benzo (a) Anthracene        | 0.10   | 0.40 | 1   | J    | mg/kg |
| 2-Methylnaphthalene          | 1500   | 200  | 500 | D    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1   |      | mg/kg |
| 1-Methylnaphthalene          | 980    | 200  | 500 | D    | mg/kg | Chrysene                    | 0.11   | 0.40 | 1   | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1   |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1   |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1   |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1   |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1   |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1   |      | mg/kg | Benzo (a) Pyrene            | 0.60   | 0.35 | 1   |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1   |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1   |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1   |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1   |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1   |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1   |      | mg/kg |                             |        |      |     |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 50      | 31-142         |      | Phenol-d6        | 51      | 30-136         |      |
| Nitrobenzene-d5      | 38      | 28-139         |      | 2-Fluorobiphenyl | 48      | 33-144         |      |
| 2,4,6-Tribromophenol | 46      | 24-152         |      | p-Terphenyl-d14  | 38      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-25      | 00-09-0519-5       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF  | Qual | Units | Parameter                   | Result | RL   | DF  | Qual | Units |
|------------------------------|--------|------|-----|------|-------|-----------------------------|--------|------|-----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1   |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1   |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1   |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1   |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1   |      | mg/kg | Dibenzofuran                | 48     | 50   | 100 | J,D  | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1   |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1   |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1   |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1   |      | mg/kg | Fluorene                    | ND     | 0.40 | 1   |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1   |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1   |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1   |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1   |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1   |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1   |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1   |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1   |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1   |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1   |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1   |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1   |      | mg/kg | Pentachlorophenol           | 180    | 250  | 100 | J,D  | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1   |      | mg/kg | Phenanthrene                | 26     | 40   | 100 | J,D  | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1   |      | mg/kg | Anthracene                  | ND     | 0.40 | 1   |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1   |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1   |      | mg/kg | Fluoranthene                | 2.5    | 0.4  | 1   |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1   |      | mg/kg | Benzidine                   | ND     | 10   | 1   |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1   |      | mg/kg | Pyrene                      | 1.3    | 0.4  | 1   |      | mg/kg |
| Naphthalene                  | 14     | 0.40 | 1   |      | mg/kg | Pyridine                    | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1   |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1   |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1   |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1   |      | mg/kg |
| 2-Methylnaphthalene          | 84     | 40   | 100 | D    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1   |      | mg/kg |
| 1-Methylnaphthalene          | 61     | 40   | 100 | D    | mg/kg | Chrysene                    | ND     | 0.40 | 1   |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1   |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1   |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1   |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1   |      | mg/kg | Benzo (k) Fluoranthene      | 0.22   | 0.40 | 1   | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1   |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1   |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1   |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1   |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1   |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1   |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1   |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1   |      | mg/kg |                             |        |      |     |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 77      | 31-142         |      | Phenol-d6        | 70      | 30-136         |      |
| Nitrobenzene-d5      | 62      | 28-139         |      | 2-Fluorobiphenyl | 70      | 33-144         |      |
| 2,4,6-Tribromophenol | 83      | 24-152         |      | p-Terphenyl-d14  | 84      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-30'     | 00-09-0519-6       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF      | Qual | Units | Parameter                   | Result | RL   | DF      | Qual | Units |
|------------------------------|--------|------|---------|------|-------|-----------------------------|--------|------|---------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1       |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1       |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1       |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1       |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1       |      | mg/kg | Dibenzofuran                | 60     | 50   | 100 D   |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1       |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1       |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1       |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1       |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1       |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1       |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1       |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1       |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1       |      | mg/kg | Fluorene                    | ND     | 0.40 | 1       |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1       |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1       |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1       |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1       |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1       |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1       |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1       |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1       |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1       |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1       |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1       |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1       |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1       |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1       |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1       |      | mg/kg | Pentachlorophenol           | 970    | 250  | 100 D   |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1       |      | mg/kg | Phenanthrene                | 120    | 40   | 100 D   |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1       |      | mg/kg | Anthracene                  | ND     | 0.40 | 1       |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1       |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1       |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1       |      | mg/kg | Fluoranthene                | 49     | 40   | 100 D   |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1       |      | mg/kg | Benzidine                   | ND     | 10   | 1       |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1       |      | mg/kg | Pyrene                      | 24     | 40   | 100 J,D |      | mg/kg |
| Naphthalene                  | 9.3    | 0.4  | 1       |      | mg/kg | Pyridine                    | ND     | 0.50 | 1       |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1       |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1       |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1       |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1       |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1       |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1       |      | mg/kg |
| 2-Methylnaphthalene          | 12     | 0.40 | 1       |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1       |      | mg/kg |
| 1-Methylnaphthalene          | 19     | 40   | 100 J,D |      | mg/kg | Chrysene                    | ND     | 0.40 | 1       |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1       |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1       |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1       |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1       |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1       |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1       |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1       |      | mg/kg | Benzo (a) Pyrene            | 0.87   | 0.35 | 1       |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1       |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1       |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1       |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1       |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1       |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1       |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1       |      | mg/kg |                             |        |      |         |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 73      | 31-142         |      | Phenol-d6        | 56      | 30-136         |      |
| Nitrobenzene-d5      | 65      | 28-139         |      | 2-Fluorobiphenyl | 64      | 33-144         |      |
| 2,4,6-Tribromophenol | 94      | 24-152         |      | p-Terphenyl-d14  | 33      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-35*     | 00-09-0519-7       | 09/12/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 48     | 25   | 50 | D    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 120    | 20   | 50 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 27     | 20   | 50 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 15     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 7.5    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.13   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | 77     | 20   | 50 | D    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 75     | 20   | 50 | D    | mg/kg | Chrysene                    | 6.2    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 2.7    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.96   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.13   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.16   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 54      | 31-142         |      | Phenol-d6        | 33      | 30-136         |      |
| Nitrobenzene-d5      | 38      | 28-139         |      | 2-Fluorobiphenyl | 45      | 33-144         |      |
| 2,4,6-Tribromophenol | 36      | 24-152         |      | p-Terphenyl-d14  | 32      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-40      | 00-09-0519-8       | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF   | Qual | Units | Parameter                   | Result | RL   | DF   | Qual | Units |
|------------------------------|--------|------|------|------|-------|-----------------------------|--------|------|------|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1    |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1    |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1    |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1    |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1    |      | mg/kg | Dibenzofuran                | 44     | 25   | 50 D |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1    |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1    |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1    |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1    |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1    |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1    |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1    |      | mg/kg | Fluorene                    | ND     | 0.40 | 1    |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1    |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1    |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1    |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1    |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1    |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1    |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1    |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1    |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1    |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1    |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1    |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1    |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1    |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1    |      | mg/kg | Pentachlorophenol           | 510    | 130  | 50 D |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1    |      | mg/kg | Phenanthrene                | 65     | 20   | 50 D |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1    |      | mg/kg | Anthracene                  | ND     | 0.40 | 1    |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1    |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1    |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1    |      | mg/kg | Fluoranthene                | 15     | 0.40 | 1    |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1    |      | mg/kg | Benzidine                   | ND     | 10   | 1    |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1    |      | mg/kg | Pyrene                      | 2.6    | 0.4  | 1    |      | mg/kg |
| Naphthalene                  | 3.5    | 0.4  | 1    |      | mg/kg | Pyridine                    | ND     | 0.50 | 1    |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1    |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1    |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1    |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1    |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1    |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1    |      | mg/kg |
| 2-Methylnaphthalene          | 45     | 20   | 50 D |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1    |      | mg/kg |
| 1-Methylnaphthalene          | 48     | 20   | 50 D |      | mg/kg | Chrysene                    | 1.9    | 0.4  | 1    |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1    |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1    |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1    |      | mg/kg | Benzo (b) Fluoranthene      | 0.74   | 0.40 | 1    |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1    |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1    |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1    |      | mg/kg | Benzo (a) Pyrene            | 0.30   | 0.35 | 1 J  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1    |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1    |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1    |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1    |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1    |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1    |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1    |      | mg/kg |                             |        |      |      |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 88      | 31-142         |      | Phenol-d6        | 56      | 30-136         |      |
| Nitrobenzene-d5      | 69      | 28-139         |      | 2-Fluorobiphenyl | 83      | 33-144         |      |
| 2,4,6-Tribromophenol | 72      | 24-152         |      | p-Terphenyl-d14  | 77      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-45'     | 00-09-0519-9       | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.86   | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 120    | 50   | 20 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 100    | 8    | 20 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 1.2    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 68     | 8    | 20 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 30     | 8    | 20 | D    | mg/kg |
| Naphthalene                  | 0.38   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 2.1    | 0.4  | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 2.0    | 0.4  | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.70   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.17   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 82      | 31-142         |      | Phenol-d6        | 68      | 30-136         |      |
| Nitrobenzene-d5      | 62      | 28-139         |      | 2-Fluorobiphenyl | 80      | 33-144         |      |
| 2,4,6-Tribromophenol | 74      | 24-152         |      | p-Terphenyl-d14  | 75      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-50*     | 00-09-0519-10      | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.11   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 53     | 4    | 10 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 3.3    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 77     | 4    | 10 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 56     | 4    | 10 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.0    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.10   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 7.7    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 3.5    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.75   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.14   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.10   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.16   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 66      | 31-142         |      | Phenol-d6        | 60      | 30-136         |      |
| Nitrobenzene-d5      | 64      | 28-139         |      | 2-Fluorobiphenyl | 83      | 33-144         |      |
| 2,4,6-Tribromophenol | 17      | 24-152         | 2    | p-Terphenyl-d14  | 88      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-55'     | 00-09-0519-11      | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.26   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 33     | 25   | 10 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 64     | 4    | 10 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 4.1    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 14     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 11     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 2.0    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 2.7    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.64   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.0    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.23   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.16   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 78      | 31-142         |      | Phenol-d6        | 68      | 30-136         |      |
| Nitrobenzene-d5      | 62      | 28-139         |      | 2-Fluorobiphenyl | 79      | 33-144         |      |
| 2,4,6-Tribromophenol | 80      | 24-152         |      | p-Terphenyl-d14  | 87      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-60'     | 00-09-0519-12      | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 5.6    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 2.2    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 39     | 4    | 10 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 24     | 4    | 10 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 2.1    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 2.9    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.60   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.99   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.14   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | 0.13   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 87      | 31-142         |      | Phenol-d6        | 77      | 30-136         |      |
| Nitrobenzene-d5      | 72      | 28-139         |      | 2-Fluorobiphenyl | 90      | 33-144         |      |
| 2,4,6-Tribromophenol | 94      | 24-152         |      | p-Terphenyl-d14  | 102     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-65'     | 00-09-0519-13      | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.19   | 0.40 | 1  | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 24     | 8    | 20 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 9.6    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 110    | 8    | 20 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 97     | 8    | 20 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 27     | 8    | 20 | D    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 34     | 8    | 20 | D    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 6.7    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 6.4    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 3.6    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 1.0    | 0.4  | 1  |      | mg/kg |
| Acenaphthylene               | 0.94   | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 7.8    | 0.4  | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.89   | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 32      | 31-142         |      | Phenol-d6        | 28      | 30-136         | 2    |
| Nitrobenzene-d5      | 28      | 28-139         |      | 2-Fluorobiphenyl | 35      | 33-144         |      |
| 2,4,6-Tribromophenol | 33      | 24-152         |      | p-Terphenyl-d14  | 45      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-70'     | 00-09-0519-14      | 09/13/00        | Solid   | 09/19/00       | 09/25/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.23   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.17   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 3.9    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 3.9    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.74   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.91   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.17   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 87      | 31-142         |      | Phenol-d6        | 78      | 30-136         |      |
| Nitrobenzene-d5      | 74      | 28-139         |      | 2-Fluorobiphenyl | 92      | 33-144         |      |
| 2,4,6-Tribromophenol | 94      | 24-152         |      | p-Terphenyl-d14  | 107     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-75      | 00-09-0519-15      | 09/13/00        | Solid   | 09/19/00       | 09/26/00       | 0009193      |

| Parameter                    | Result | RL   | DF  | Qual | Units | Parameter                   | Result | RL   | DF  | Qual | Units |
|------------------------------|--------|------|-----|------|-------|-----------------------------|--------|------|-----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1   |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1   |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1   |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1   |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1   |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1   |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1   |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1   |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1   |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1   |      | mg/kg | Fluorene                    | ND     | 0.40 | 1   |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1   |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1   |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1   |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1   |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1   |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1   |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1   |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1   |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1   |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1   |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1   |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1   |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1   |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1   |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1   |      | mg/kg | Phenanthrene                | 1.8    | 0.4  | 1   |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1   |      | mg/kg | Anthracene                  | 0.83   | 0.40 | 1   |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1   |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1   |      | mg/kg | Fluoranthene                | 14     | 0.40 | 1   |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1   |      | mg/kg | Benzidine                   | ND     | 10   | 1   |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1   |      | mg/kg | Pyrene                      | 16     | 0.40 | 1   |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1   |      | mg/kg | Pyridine                    | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1   |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1   |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1   |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1   |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1   |      | mg/kg | Benzo (a) Anthracene        | 9.5    | 0.4  | 1   |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1   |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1   |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1   |      | mg/kg | Chrysene                    | 12     | 0.40 | 1   |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1   |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1   |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1   |      | mg/kg | Benzo (b) Fluoranthene      | 1.9    | 0.4  | 1   |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1   |      | mg/kg | Benzo (k) Fluoranthene      | 3.0    | 0.4  | 1   |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1   |      | mg/kg | Benzo (a) Pyrene            | 1.7    | 0.3  | 1   |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1   |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.26   | 0.40 | 1 J |      | mg/kg |
| Acenaphthylene               | 0.17   | 0.40 | 1 J |      | mg/kg | Dibenz (a,h) Anthracene     | 0.11   | 0.40 | 1 J |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1   |      | mg/kg | Benzo (g,h,i) Perylene      | 0.22   | 0.40 | 1 J |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1   |      | mg/kg |                             |        |      |     |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 98      | 31-142         |      | Phenol-d6        | 97      | 30-136         |      |
| Nitrobenzene-d5      | 88      | 28-139         |      | 2-Fluorobiphenyl | 74      | 33-144         |      |
| 2,4,6-Tribromophenol | 92      | 24-152         |      | p-Terphenyl-d14  | 87      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-80'     | 00-09-0519-16      | 09/13/00        | Solid   | 09/19/00       | 09/26/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.17   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.20   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.11   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.14   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.63   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.93   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.47   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.25   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.18   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 106     | 31-142         |      | Phenol-d6        | 105     | 30-136         |      |
| Nitrobenzene-d5      | 95      | 28-139         |      | 2-Fluorobiphenyl | 81      | 33-144         |      |
| 2,4,6-Tribromophenol | 91      | 24-152         |      | p-Terphenyl-d14  | 102     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-85'     | 00-09-0519-17      | 09/13/00        | Solid   | 09/19/00       | 09/26/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.15   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.19   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.19   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.23   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.12   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.13   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 84      | 31-142         |      | Phenol-d6        | 87      | 30-136         |      |
| Nitrobenzene-d5      | 79      | 28-139         |      | 2-Fluorobiphenyl | 71      | 33-144         |      |
| 2,4,6-Tribromophenol | 81      | 24-152         |      | p-Terphenyl-d14  | 90      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-90'     | 00-09-0519-18      | 09/13/00        | Solid   | 09/19/00       | 09/26/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.13   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.45   | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.55   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.19   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.22   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.14   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.26   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.13   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 101     | 31-142         |      | Phenol-d6        | 102     | 30-136         |      |
| Nitrobenzene-d5      | 91      | 28-139         |      | 2-Fluorobiphenyl | 80      | 33-144         |      |
| 2,4,6-Tribromophenol | 90      | 24-152         |      | p-Terphenyl-d14  | 95      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-95'     | 00-09-0519-19      | 09/13/00        | Solid   | 09/19/00       | 09/22/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Iso phorone                  | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.11   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.16   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      | mg/kg |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 76      | 31-142         |      | Phenol-d6        | 77      | 30-136         |      |
| Nitrobenzene-d5      | 75      | 28-139         |      | 2-Fluorobiphenyl | 90      | 33-144         |      |
| 2,4,6-Tribromophenol | 90      | 24-152         |      | p-Terphenyl-d14  | 91      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-100     | 00-09-0519-20      | 09/13/00        | Solid   | 09/19/00       | 09/22/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.15   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.45   | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.52   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.13   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.23   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 86      | 31-142         |      | Phenol-d6        | 84      | 30-136         |      |
| Nitrobenzene-d5      | 82      | 28-139         |      | 2-Fluorobiphenyl | 95      | 33-144         |      |
| 2,4,6-Tribromophenol | 97      | 24-152         |      | p-Terphenyl-d14  | 96      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-105.5'  | 00-09-0519-21      | 09/13/00        | Solid   | 09/19/00       | 09/26/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 130    | 25   | 50 | D    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 71     | 20   | 50 | D    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 370    | 20   | 50 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 41     | 20   | 50 | D    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 160    | 20   | 50 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 160    | 20   | 50 | D    | mg/kg |
| Naphthalene                  | 590    | 20   | 50 | D    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 30     | 20   | 50 | D    | mg/kg |
| 2-Methylnaphthalene          | 250    | 20   | 50 | D    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 140    | 20   | 50 | D    | mg/kg | Chrysene                    | 34     | 20   | 50 | D    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 11     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 8.0    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 8.8    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | 2.5    | 0.4  | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.13   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.68   | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | 130    | 20   | 50 | D    | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 98      | 31-142         |      | Phenol-d6        | 102     | 30-136         |      |
| Nitrobenzene-d5      | 85      | 28-139         | J,D  | 2-Fluorobiphenyl | 88      | 33-144         |      |
| 2,4,6-Tribromophenol | 0       | 24-152         | D,2  | p-Terphenyl-d14  | 96      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-110     | 00-09-0519-22      | 09/13/00        | Solid   | 09/19/00       | 09/26/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 42     | 10   | 20 | D    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 23     | 8    | 20 | D    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 130    | 8    | 20 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 9.2    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 53     | 8    | 20 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 47     | 8    | 20 | D    | mg/kg |
| Naphthalene                  | 210    | 8    | 20 | D    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 10     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 83     | 8    | 20 | D    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 47     | 8    | 20 | D    | mg/kg | Chrysene                    | 11     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 3.5    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 4.8    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 3.3    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.39   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.16   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.26   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | 43     | 8    | 20 | D    | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 96      | 31-142         |      | Phenol-d6        | 96      | 30-136         |      |
| Nitrobenzene-d5      | 156     | 28-139         | 2    | 2-Fluorobiphenyl | 73      | 33-144         |      |
| 2,4,6-Tribromophenol | 61      | 24-152         | D    | p-Terphenyl-d14  | 96      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-82/EW-1(00)-115'    | 00-09-0519-23      | 09/13/00        | Solid   | 09/19/00       | 09/21/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.77   | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.14   | 0.40 | 1  | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 49     | 4    | 10 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.26   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 5.2    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 2.9    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 1.1    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.48   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.30   | 0.40 | 1  | J    | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | 0.24   | 0.40 | 1  | J    | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 102     | 31-142         |      | Phenol-d6        | 107     | 30-136         |      |
| Nitrobenzene-d5      | 94      | 28-139         |      | 2-Fluorobiphenyl | 77      | 33-144         |      |
| 2,4,6-Tribromophenol | 102     | 24-152         |      | p-Terphenyl-d14  | 94      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0519  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-775     | N/A             | Solid   | 09/19/00       | 09/20/00       | 0009195      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 106     | 31-142         |      | Phenol-d6        | 111     | 30-136         |      |
| Nitrobenzene-d5      | 100     | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 106     | 24-152         |      | p-Terphenyl-d14  | 97      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-786     | N/A             | Solid   | 09/19/00       | 09/22/00       | 0009193      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 77      | 31-142         |      | Phenol-d6        | 78      | 30-136         |      |
| Nitrobenzene-d5      | 74      | 28-139         |      | 2-Fluorobiphenyl | 89      | 33-144         |      |
| 2,4,6-Tribromophenol | 94      | 24-152         |      | p-Terphenyl-d14  | 94      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers



## Quality Control - Spike/Spike Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|------------------|--------|------------|---------------|---------------|---------------------|
| 00-09-0517-1     | Solid  | GC/MS F    | 09/19/00      | 09/20/00      | 000905171           |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 88      | 107      | 53-118  | 19  | 0-19   |            |
| 2-Chlorophenol             | 94      | 112      | 60-119  | 18  | 0-18   |            |
| 1,4-Dichlorobenzene        | 90      | 105      | 56-131  | 16  | 0-18   |            |
| N-Nitroso-di-n-propylamine | 96      | 99       | 64-123  | 4   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 87      | 101      | 52-144  | 15  | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 98      | 113      | 45-135  | 14  | 0-20   |            |
| Acenaphthene               | 87      | 100      | 45-152  | 14  | 0-18   |            |
| 4-Nitrophenol              | 80      | 92       | 45-135  | 14  | 0-20   |            |
| 2,4-Dinitrotoluene         | 86      | 99       | 42-128  | 14  | 0-23   |            |
| Pentachlorophenol          | 94      | 112      | 45-135  | 17  | 0-20   |            |
| Pyrene                     | 101     | 120      | 45-135  | 17  | 0-20   |            |



## Quality Control - Spike/Spike Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID  | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|-------------------|--------|------------|---------------|---------------|---------------------|
| B-82/EW-1(00)-30' | Solid  | GC/MS H    | 09/19/00      | 09/26/00      | 000905196           |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 81      | 84       | 53-118  | 3   | 0-19   |            |
| 2-Chlorophenol             | 87      | 85       | 60-119  | 2   | 0-18   |            |
| 1,4-Dichlorobenzene        | 83      | 82       | 56-131  | 1   | 0-18   |            |
| N-Nitroso-di-n-propylamine | 96      | 96       | 64-123  | 0   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 81      | 79       | 52-144  | 2   | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 91      | 92       | 45-135  | 1   | 0-20   |            |
| Acenaphthene               | 74      | 74       | 45-152  | 0   | 0-18   |            |
| 4-Nitrophenol              | 82      | 78       | 45-135  | 5   | 0-20   |            |
| 2,4-Dinitrotoluene         | 75      | 75       | 42-128  | 0   | 0-23   |            |
| Pentachlorophenol          | 269     | 285      | 45-135  | 4   | 0-20   | X          |
| Pyrene                     | 405     | 412      | 45-135  | 2   | 0-20   | X          |



## Quality Control - LCS/LCS Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0519  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-775    | Solid  | GC/MS F    | 09/19/00      | 09/20/00      | 0009195               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 104      | 109       | 67-118  | 4   | 0-24   |            |
| 2-Chlorophenol             | 107      | 115       | 72-119  | 7   | 0-24   |            |
| 1,4-Dichlorobenzene        | 101      | 108       | 69-118  | 6   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 95       | 99        | 70-112  | 4   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 99       | 105       | 65-135  | 7   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 113      | 120       | 45-135  | 6   | 0-20   |            |
| Acenaphthene               | 99       | 106       | 61-142  | 7   | 0-25   |            |
| 4-Nitrophenol              | 98       | 112       | 45-135  | 14  | 0-20   |            |
| 2,4-Dinitrotoluene         | 97       | 108       | 47-137  | 11  | 0-24   |            |
| Pentachlorophenol          | 109      | 123       | 45-135  | 12  | 0-20   |            |
| Pyrene                     | 103      | 111       | 45-135  | 7   | 0-20   |            |



## Quality Control - LCS/LCS Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received:  
Work Order No:  
Preparation:  
Method:

09/15/00  
00-09-0519  
EPA 3545  
EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-786    | Solid  | GC/MS H    | 09/19/00      | 09/22/00      | 0009193               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 83       | 86        | 67-118  | 4   | 0-24   |            |
| 2-Chlorophenol             | 79       | 82        | 72-119  | 4   | 0-24   |            |
| 1,4-Dichlorobenzene        | 87       | 89        | 69-118  | 3   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 82       | 83        | 70-112  | 1   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 94       | 98        | 65-135  | 4   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 95       | 102       | 45-135  | 7   | 0-20   |            |
| Acenaphthene               | 94       | 99        | 61-142  | 6   | 0-25   |            |
| 4-Nitrophenol              | 77       | 84        | 45-135  | 8   | 0-20   |            |
| 2,4-Dinitrotoluene         | 82       | 87        | 47-137  | 6   | 0-24   |            |
| Pentachlorophenol          | 75       | 83        | 45-135  | 11  | 0-20   |            |
| Pyrene                     | 98       | 105       | 45-135  | 7   | 0-20   |            |



## GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-09-0519

| <u>Qualifier</u> | <u>Definition</u>   |
|------------------|---|
| 2                | Surrogate spike compound was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. |
| D                | The sample data was reported from a diluted analysis.   |
| J                | Analyte was detected at a concentration below the reporting limit.  |
|                  | Reported value is estimated.  |
| ND               | Not detected at indicated reporting limit.  |
| X                | % Recovery and/or RPD out-of-range.   |

SCE - ROSEMEAD, CA

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

CHAIN OF CUSTODY RECORD

Date 9/12-9/13

Page 1 of 3

|                                   |                     |                                       |  |  |
|-----------------------------------|---------------------|---------------------------------------|--|--|
| LABORATORY CLIENT:                |                     | <b>Southern California Edison Co.</b> |  |  |
| ADDRESS: 2244 Walnut Grove Avenue |                     |                                       |  |  |
| CITY                              | STATE               | ZIP                                   |  |  |
| Rosemead,                         | CA                  | 91770                                 |  |  |
| TEL: 626 / 302-4033               | FAX: 626 / 302-9730 | E-MAIL: <i>Weidner</i> @sce.com       |  |  |

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

SPECIAL INSTRUCTIONS  
  
*B-82/EW-1(00)*

| LAB USE ONLY | SAMPLE ID           | LOCATION/DESCRIPTION | SAMPLING       |             | MATRIX                  | NO. OF CONT. |
|--------------|---------------------|----------------------|----------------|-------------|-------------------------|--------------|
|              |                     |                      | DATE           | TIME        |                         |              |
|              | <i>(00)</i>         |                      |                |             | EPA 8280                |              |
|              | <i>B-82/EW-1-5'</i> |                      | <i>9/12/00</i> | <i>4:05</i> | EPA 525.2 (SCE LIST)    |              |
|              | <i>-10'</i>         |                      |                | <i>4:15</i> | EPA 8270C (SCE LIST)    |              |
|              | <i>-15'</i>         |                      |                | <i>4:20</i> | TPH (d), RL = 0.05 ppm  |              |
|              | <i>-20'</i>         |                      |                | <i>4:30</i> | TPH (g) (d) (o)         |              |
|              | <i>-25'</i>         |                      |                | <i>4:35</i> | BTX / MTBE (8021B)      |              |
|              | <i>-30'</i>         |                      |                | <i>4:42</i> | HALOCARBONS (8021B)     |              |
|              | <i>-35'</i>         |                      |                | <i>4:52</i> | VOCs (8260B)            |              |
|              | <i>-40'</i>         |                      | <i>9/13/00</i> | <i>7:45</i> | SVOCs (8270C)           |              |
|              | <i>-45'</i>         |                      |                | <i>7:55</i> | PEST / PCBs (8081A)     |              |
|              | <i>-50'</i>         |                      |                | <i>8:05</i> | CAC, T22 METALS (6010A) |              |

|  |   |                |              |
|--|---|----------------|--------------|
| Relinquished by: (Signature)<br><i>Weidner</i> | Received by: (Signature)                                | Date: 9/15/00  | Time: 1:30PM |
| Relinquished by: (Signature)                   | Received by: (Signature)                                | Date:          | Time:        |
| Relinquished by: (Signature)                   | Received for Laboratory by: (Signature)<br><i>Pause</i> | Date: 09/15/00 | Time: 1:30   |

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

SCE - ROSEMEAD, CA

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

CHAIN OF CUSTODY RECORD

Date 9/13

Page 2 of 3

|                     |                                |  |  |
|---------------------|--------------------------------|--|--|
| LABORATORY CLIENT:  | Southern California Edison Co. |  |  |
| ADDRESS:            | 2244 Walnut Grove Avenue       |  |  |
| CITY                | STATE                          | ZIP  |  |
| Rosemead,           | CA                             | 91770  |  |
| TEL: 626 / 302-4033 | FAX: 626 / 302-9730            | E-MAIL: <a href="mailto:WeidnerS@sce.com">WeidnerS@sce.com</a> |  |

|  |   |
|--|---|
| SCE PROJECT NAME / NUMBER:<br><u>VISALIA STEAM REMEDIATION PROJ.</u> | P.O. NO.:   |
| PROJECT CONTACT:<br><u>RANDY WEIDNER</u>                             | QUOTE NO.:  |
| SAMPLER(S): (SIGNATURE)  | LAB USE ONLY<br><input checked="" type="checkbox"/> 9 - <input type="checkbox"/> 5 <input type="checkbox"/> 1 |

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

SPECIAL INSTRUCTIONS

| LAB USE ONLY | SAMPLE ID<br>100 | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX | NO. OF<br>CONT |
|--------------|------------------|----------------------|----------|------|--------|----------------|
|              |                  |                      | DATE     | TIME |        |                |
|              | B82/EW1-55'      |                      | 9/13/00  | 8:15 |        |                |
|              | -60'             |                      |          | 8:20 |        |                |
|              | -65'             |                      |          | 8:40 |        |                |
|              | -70'             |                      |          | 8:50 |        |                |
|              | -75'             |                      |          | 9:00 |        |                |
|              | -80'             |                      |          | 9:10 |        |                |
|              | -85'             |                      |          | 9:25 |        |                |
|              | -90'             |                      |          | 9:38 |        |                |
|              | -95'             |                      |          | 9:48 |        |                |
|              | -100'            |                      |          | 9:58 |        |                |

| EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | TPH (g) (d) (o) | BTX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) | SVOCs (8270C) | PEST / PCBs (8081A) | CAC, T22 METALS (6010A) | ICP / MS METALS (6020) | PNAs (8310) | VOCs (TO-14) |
|----------|----------------------|----------------------|------------------------|-----------------|--------------------|---------------------|--------------|---------------|---------------------|-------------------------|------------------------|-------------|--------------|
|          |                      |                      |                        |                 |                    | X                   |              | X             |                     |                         |                        |             |              |
|          |                      |                      |                        |                 |                    |                     | X            |               |                     |                         |                        |             |              |
|          |                      |                      |                        |                 |                    |                     |              | X             |                     |                         |                        |             |              |
|          |                      |                      |                        |                 |                    |                     |              |               | X                   |                         |                        |             |              |
|          |                      |                      |                        |                 |                    |                     |              |               |                     | X                       |                        |             |              |
|          |                      |                      |                        |                 |                    |                     |              |               |                     |                         | X                      |             |              |
|          |                      |                      |                        |                 |                    |                     |              |               |                     |                         |                        | X           |              |
|          |                      |                      |                        |                 |                    |                     |              |               |                     |                         |                        |             | X            |

Relinquished by: (Signature)  
Randy Weidner

Received by: (Signature)

Date: 9/15/00 Time: 1:30 PM

Relinquished by: (Signature)

Received by: (Signature)

Date: Time:

Relinquished by: (Signature)

Received for Laboratory by: (Signature)  
J. Lane

Date: 09/15/00 Time: 1:30

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

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SCE ROSEMEAD, CA

ENVIRONMENTAL AFFAIRS  
GO1, ROOM 405

CHAIN OF CUSTODY RECORD

Date 9/13/00

Page 3 of 3

|   |                     |                                |  |  |  |
|---|---------------------|--------------------------------|--|--|--|
| LABORATORY CLIENT: Southern California Edison Co. |                     |                                |  |  |  |
| ADDRESS: 2244 Walnut Grove Avenue                 |                     |                                |  |  |  |
| CITY  | STATE               | ZIP                            |  |  |  |
| Rosemead,   | CA                  | 91770                          |  |  |  |
| TEL: 626 / 302-4033                               | FAX: 626 / 302-9730 | E-MAIL: <i>weidner@sce.com</i> |  |  |  |

SCE PROJECT NAME / NUMBER:  
*VISALIA STEAM REMEDIATION PROJ.*  
PROJECT CONTACT:  
*RANDY WEIDNER*  
SAMPLER(S) (SIGNATURE)  
*Randy Weidner*

P.O. NO.:  
QUOTE NO.:  
LAB USE ONLY  
 9 -  5  1 ?

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

SPECIAL INSTRUCTIONS

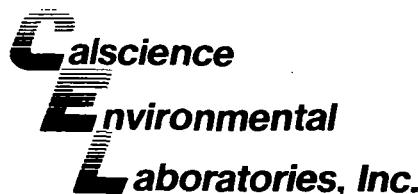
| LAB USE ONLY | SAMPLE ID    | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX                  | NO. OF CONT. |
|--------------|--------------|----------------------|----------|------|-------------------------|--------------|
|              |              |                      | DATE     | TIME |                         |              |
|              | B-82/EW-1(0) | -104'                |          |      | EPA 8280                |              |
|              | B-82/EW-1(0) | -105.5'              |          |      | EPA 525.2 (SCE LIST)    |              |
|              |              | -107.                |          |      | EPA 8270C (SCE LIST)    |              |
|              |              | -108.5               |          |      | TPH (d), RL = 0.05 ppm  |              |
|              |              | -110.                |          |      | TPH (g) (d) (o)         |              |
|              |              | -115                 | 11.20    |      | BTEX / MTBE (8021B)     |              |
|              |              | +120                 | 11:30    |      | HALOCARBONS (8021B)     |              |
|              |              |                      |          |      | VOCs (8260B)            |              |
|              |              |                      |          |      | SVOCs (8270C)           |              |
|              |              |                      |          |      | PEST / PCBs (8081A)     |              |
|              |              |                      |          |      | CAC, T22 METALS (6010A) |              |
|              |              |                      |          |      | ICP / MS METALS (6020)  |              |
|              |              |                      |          |      | PNAs (8310)             |              |
|              |              |                      |          |      | VOCS (TO-14)            |              |

|  |   |                |               |
|--|---|----------------|---------------|
| Relinquished by: (Signature)<br><i>Randy Weidner</i> | Received by: (Signature)                                      | Date: 9/15/00  | Time: 1:30 pm |
| Relinquished by: (Signature)                         | Received by: (Signature)                                      | Date:          | Time:         |
| Relinquished by: (Signature)                         | Received for Laboratory by: (Signature)<br><i>M. L. Lauer</i> | Date: 09/15/00 | Time: 1:30    |

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE



September 29, 2000

Randy Weidner  
Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

**Subject: Calscience Work Order No.: 00-09-0518**  
**Client Reference: SCE VPY Steam Remediation**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 09/15/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

A handwritten signature in black ink that appears to read "William H. Christensen".

Calscience Environmental  
Laboratories, Inc.  
William H. Christensen  
Quality Assurance Manager

A handwritten signature in black ink that appears to read "William H. Christensen".

William H. Christensen  
Quality Assurance Manager

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 1 of 27

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-5            | 00-09-0518-1       | 09/13/00        | Solid   | 09/16/00       | 09/20/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 84      | 31-142         |      | Phenol-d6        | 89      | 30-136         |      |
| Nitrobenzene-d5      | 82      | 28-139         |      | 2-Fluorobiphenyl | 87      | 33-144         |      |
| 2,4,6-Tribromophenol | 98      | 24-152         |      | p-Terphenyl-d14  | 87      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 2 of 27

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-10           | 00-09-0518-2       | 09/13/00        | Solid   | 09/16/00       | 09/20/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 87      | 31-142         |      | Phenol-d6        | 91      | 30-136         |      |
| Nitrobenzene-d5      | 83      | 28-139         |      | 2-Fluorobiphenyl | 88      | 33-144         |      |
| 2,4,6-Tribromophenol | 101     | 24-152         |      | p-Terphenyl-d14  | 89      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-15           | 00-09-0518-3       | 09/13/00        | Solid   | 09/16/00       | 09/20/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.15   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.93   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.44   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.36   | 0.40 | 1  | J    | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 91      | 31-142         |      | Phenol-d6        | 96      | 30-136         |      |
| Nitrobenzene-d5      | 88      | 28-139         |      | 2-Fluorobiphenyl | 93      | 33-144         |      |
| 2,4,6-Tribromophenol | 107     | 24-152         |      | p-Terphenyl-d14  | 90      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-20           | 00-09-0518-4       | 09/13/00        | Solid   | 09/16/00       | 09/20/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 89      | 31-142         |      | Phenol-d6        | 93      | 30-136         |      |
| Nitrobenzene-d5      | 86      | 28-139         |      | 2-Fluorobiphenyl | 91      | 33-144         |      |
| 2,4,6-Tribromophenol | 104     | 24-152         |      | p-Terphenyl-d14  | 90      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-25           | 00-09-0518-5       | 09/13/00        | Solid   | 09/16/00       | 09/20/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 80      | 31-142         |      | Phenol-d6        | 84      | 30-136         |      |
| Nitrobenzene-d5      | 81      | 28-139         |      | 2-Fluorobiphenyl | 83      | 33-144         |      |
| 2,4,6-Tribromophenol | 90      | 24-152         |      | p-Terphenyl-d14  | 83      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-30           | 00-09-0518-6       | 09/13/00        | Solid   | 09/16/00       | 09/20/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 88      | 31-142         |      | Phenol-d6        | 91      | 30-136         |      |
| Nitrobenzene-d5      | 86      | 28-139         |      | 2-Fluorobiphenyl | 88      | 33-144         |      |
| 2,4,6-Tribromophenol | 103     | 24-152         |      | p-Terphenyl-d14  | 92      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-35           | 00-09-0518-7       | 09/13/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | 0.16   | 0.50 | 1  | J    | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 62     | 25   | 10 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 3.7    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.11   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | 2.2    | 2.5  | 1  | J    | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 3.0    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 1.2    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | 0.11   | 0.50 | 1  | J    | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 1.0    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.16   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.13   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.12   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 90      | 31-142         |      | Phenol-d6        | 88      | 30-136         |      |
| Nitrobenzene-d5      | 93      | 28-139         |      | 2-Fluorobiphenyl | 89      | 33-144         |      |
| 2,4,6-Tribromophenol | 96      | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-40           | 00-09-0518-8       | 09/13/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.24   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 0.62   | 2.5  | 1  | J    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 3.4    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.27   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 3.8    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 4.0    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.22   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 2.8    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.38   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.36   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.28   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.12   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 89      | 31-142         |      | Phenol-d6        | 90      | 30-136         |      |
| Nitrobenzene-d5      | 93      | 28-139         |      | 2-Fluorobiphenyl | 98      | 33-144         |      |
| 2,4,6-Tribromophenol | 102     | 24-152         |      | p-Terphenyl-d14  | 101     | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-45           | 00-09-0518-9       | 09/13/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.20   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 3.8    | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 2.1    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 1.4    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 28     | 20   | 50 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 22     | 20   | 50 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.5    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | 0.12   | 0.50 | 1  | J    | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 5.4    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.2    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.2    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.83   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 87      | 31-142         |      | Phenol-d6        | 85      | 30-136         |      |
| Nitrobenzene-d5      | 87      | 28-139         |      | 2-Fluorobiphenyl | 89      | 33-144         |      |
| 2,4,6-Tribromophenol | 90      | 24-152         |      | p-Terphenyl-d14  | 97      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-50           | 00-09-0518-10      | 09/13/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | 0.17   | 2.5  | 1  | J    | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 3.8    | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 5.3    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 1.6    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 23     | 20   | 50 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 32     | 20   | 50 | D    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 4.1    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 10     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.7    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 2.3    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.2    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.23   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.42   | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.35   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 86      | 31-142         |      | Phenol-d6        | 87      | 30-136         |      |
| Nitrobenzene-d5      | 89      | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 97      | 24-152         |      | p-Terphenyl-d14  | 108     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-55           | 00-09-0518-11      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 1.2    | 0.5  | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 130  | 50 | D    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 77     | 20   | 50 | D    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 4.1    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | 0.12   | 2.5  | 1  | J    | mg/kg | Di-n-Butyl Phthalate        | 0.15   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 100    | 20   | 50 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 73     | 20   | 50 | D    | mg/kg |
| Naphthalene                  | 0.31   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 9.4    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.51   | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | 0.10   | 0.50 | 1  | J    | mg/kg |
| 1-Methylnaphthalene          | 0.33   | 0.40 | 1  | J    | mg/kg | Chrysene                    | 22     | 20   | 50 | D    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 5.5    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 5.9    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 3.4    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.68   | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.30   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.81   | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 84      | 31-142         |      | Phenol-d6        | 86      | 30-136         |      |
| Nitrobenzene-d5      | 88      | 28-139         |      | 2-Fluorobiphenyl | 84      | 33-144         |      |
| 2,4,6-Tribromophenol | 98      | 24-152         |      | p-Terphenyl-d14  | 96      | 23-160         | D    |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-60           | 00-09-0518-12      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | 0.14   | 2.5  | 1  | J    | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.69   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.40   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 1.8    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 2.4    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 2.3    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 3.6    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.97   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.3    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.64   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.14   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.20   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.17   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 77      | 31-142         |      | Phenol-d6        | 78      | 30-136         |      |
| Nitrobenzene-d5      | 75      | 28-139         |      | 2-Fluorobiphenyl | 78      | 33-144         |      |
| 2,4,6-Tribromophenol | 81      | 24-152         |      | p-Terphenyl-d14  | 95      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers



## ANALYTICAL REPORT

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-65           | 00-09-0518-13      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.78   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.21   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 2.1    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 2.3    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 2.2    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 2.6    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.41   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.50   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.21   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 83      | 31-142         |      | Phenol-d6        | 86      | 30-136         |      |
| Nitrobenzene-d5      | 81      | 28-139         |      | 2-Fluorobiphenyl | 76      | 33-144         |      |
| 2,4,6-Tribromophenol | 91      | 24-152         |      | p-Terphenyl-d14  | 95      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-70           | 00-09-0518-14      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.31   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 3.9    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.64   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 8.9    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 11     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 0.21   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 4.7    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.43   | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.24   | 0.40 | 1  | J    | mg/kg | Chrysene                    | 5.4    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.4    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.6    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.1    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.24   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.14   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.21   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 84      | 31-142         |      | Phenol-d6        | 88      | 30-136         |      |
| Nitrobenzene-d5      | 87      | 28-139         |      | 2-Fluorobiphenyl | 86      | 33-144         |      |
| 2,4,6-Tribromophenol | 88      | 24-152         |      | p-Terphenyl-d14  | 92      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-75           | 00-09-0518-15      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.99   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.14   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.80   | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.89   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 0.23   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.74   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.13   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.94   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.17   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.25   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.15   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 79      | 31-142         |      | Phenol-d6        | 81      | 30-136         |      |
| Nitrobenzene-d5      | 76      | 28-139         |      | 2-Fluorobiphenyl | 61      | 33-144         |      |
| 2,4,6-Tribromophenol | 84      | 24-152         |      | p-Terphenyl-d14  | 92      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-80           | 00-09-0518-16      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phénol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.32   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 1.6    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.19   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 1.3    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 1.3    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 0.54   | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.78   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.36   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.22   | 0.40 | 1  | J    | mg/kg | Chrysene                    | 0.94   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.17   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.25   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.14   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | 0.19   | 0.40 | 1  | J    | mg/kg |                             |        |      |    |      | mg/kg |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 85      | 31-142         |      | Phenol-d6        | 87      | 30-136         |      |
| Nitrobenzene-d5      | 83      | 28-139         |      | 2-Fluorobiphenyl | 58      | 33-144         |      |
| 2,4,6-Tribromophenol | 91      | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-85           | 00-09-0518-17      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Iosphorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.52   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.11   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.49   | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.54   | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 0.11   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloraniline               | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.3    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 1.2    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.29   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.43   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.76   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.16   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 85      | 31-142         |      | Phenol-d6        | 85      | 30-136         |      |
| Nitrobenzene-d5      | 86      | 28-139         |      | 2-Fluorobiphenyl | 90      | 33-144         |      |
| 2,4,6-Tribromophenol | 87      | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-90           | 00-09-0518-18      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.88   | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.16   | 0.40 | 1  | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 2.6    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.36   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 2.5    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 2.4    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.35   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | 1.0    | 0.4  | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.75   | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.35   | 0.40 | 1  | J    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.16   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.27   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.23   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | 1.4    | 0.4  | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 89      | 31-142         |      | Phenol-d6        | 89      | 30-136         |      |
| Nitrobenzene-d5      | 89      | 28-139         |      | 2-Fluorobiphenyl | 95      | 33-144         |      |
| 2,4,6-Tribromophenol | 91      | 24-152         |      | p-Terphenyl-d14  | 96      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-95           | 00-09-0518-19      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.42   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.11   | 0.40 | 1  | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 1.8    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.85   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 21     | 8    | 20 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 33     | 8    | 20 | D    | mg/kg |
| Naphthalene                  | 11     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 4.2    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 1.4    | 0.4  | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 1.8    | 0.4  | 1  |      | mg/kg | Chrysene                    | 4.6    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.5    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 2.0    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.4    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.13   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | 0.24   | 0.40 | 1  | J    | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | 0.89   | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 81      | 31-142         |      | Phenol-d6        | 82      | 30-136         |      |
| Nitrobenzene-d5      | 83      | 28-139         |      | 2-Fluorobiphenyl | 77      | 33-144         |      |
| 2,4,6-Tribromophenol | 93      | 24-152         |      | p-Terphenyl-d14  | 102     | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-100          | 00-09-0518-20      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 7.6    | 0.5  | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 3.4    | 0.4  | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | 0.10   | 2.5  | 1  | J    | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 6.5    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 2.8    | 0.4  | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 5.9    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 8.1    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 5.1    | 0.4  | 1  | D    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 2.3    | 0.4  | 1  | D    | mg/kg |
| 2-Methylnaphthalene          | 1.8    | 0.4  | 1  | D    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 9.9    | 0.4  | 1  |      | mg/kg | Chrysene                    | 3.0    | 0.4  | 1  | D    | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.8    | 0.4  | 1  | D    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 15     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 2.5    | 0.3  | 1  | D    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 5.7    | 0.4  | 1  |      | mg/kg |
| Acenaphthylene               | 1.6    | 0.4  | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 3.2    | 0.4  | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 4.6    | 0.4  | 1  |      | mg/kg |
| Acenaphthene                 | 5.3    | 0.4  | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 77      | 31-142         |      | Phenol-d6        | 78      | 30-136         |      |
| Nitrobenzene-d5      | 78      | 28-139         |      | 2-Fluorobiphenyl | 83      | 33-144         |      |
| 2,4,6-Tribromophenol | 81      | 24-152         |      | p-Terphenyl-d14  | 100     | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-101.5        | 00-09-0518-21      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Iosphorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.12   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | 0.33   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.57   | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.81   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.27   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.38   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.11   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 72      | 31-142         |      | Phenol-d6        | 75      | 30-136         |      |
| Nitrobenzene-d5      | 69      | 28-139         |      | 2-Fluorobiphenyl | 55      | 33-144         |      |
| 2,4,6-Tribromophenol | 78      | 24-152         |      | p-Terphenyl-d14  | 115     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-105          | 00-09-0518-22      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.59   | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.13   | 0.40 | 1  | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 1.8    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.41   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 3.8    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 4.9    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 4.7    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 2.7    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 1.7    | 0.4  | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 1.3    | 0.4  | 1  |      | mg/kg | Chrysene                    | 3.1    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.84   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.1    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.85   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.16   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.13   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | 0.64   | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 73      | 31-142         |      | Phenol-d6        | 75      | 30-136         |      |
| Nitrobenzene-d5      | 70      | 28-139         |      | 2-Fluorobiphenyl | 58      | 33-144         |      |
| 2,4,6-Tribromophenol | 84      | 24-152         |      | p-Terphenyl-d14  | 108     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-110          | 00-09-0518-23      | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.45   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | 0.10   | 0.40 | 1  | J    | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isonphorone                  | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 1.4    | 0.4  | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.31   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 2.6    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 3.4    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 3.5    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.8    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 1.2    | 0.4  | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.90   | 0.40 | 1  |      | mg/kg | Chrysene                    | 2.1    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.60   | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.78   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.60   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | 0.46   | 0.40 | 1  |      | mg/kg |                             |        |      |    |      | mg/kg |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 76      | 31-142         |      | Phenol-d6        | 77      | 30-136         |      |
| Nitrobenzene-d5      | 74      | 28-139         |      | 2-Fluorobiphenyl | 59      | 33-144         |      |
| 2,4,6-Tribromophenol | 81      | 24-152         |      | p-Terphenyl-d14  | 105     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-111.5        | 00-09-0518-24      | 09/14/00        | Solid   | 09/16/00       | 09/25/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.27   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.88   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.18   | 0.40 | 1  | J    | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 1.1    | 0.4  | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 1.3    | 0.4  | 1  |      | mg/kg |
| Naphthalene                  | 1.7    | 0.4  | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 1.1    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.60   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.39   | 0.40 | 1  | J    | mg/kg | Chrysene                    | 1.3    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.36   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.51   | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.43   | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.11   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | 0.23   | 0.40 | 1  | J    | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 72      | 31-142         |      | Phenol-d6        | 74      | 30-136         |      |
| Nitrobenzene-d5      | 73      | 28-139         |      | 2-Fluorobiphenyl | 47      | 33-144         |      |
| 2,4,6-Tribromophenol | 75      | 24-152         |      | p-Terphenyl-d14  | 84      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| S-14(00)-115          | 00-09-0518-25      | 09/14/00        | Solid   | 09/16/00       | 09/25/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | 0.11   | 0.50 | 1  | J    | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.37   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | 0.54   | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 14     | 4    | 10 | D    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 19     | 4    | 10 | D    | mg/kg |
| Naphthalene                  | 0.86   | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | 0.12   | 0.50 | 1  | J    | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 4.6    | 0.4  | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.25   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.16   | 0.40 | 1  | J    | mg/kg | Chrysene                    | 4.9    | 0.4  | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 1.1    | 0.4  | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 1.5    | 0.4  | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 1.4    | 0.3  | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | 0.37   | 0.40 | 1  | J    | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | 0.14   | 0.40 | 1  | J    | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | 0.33   | 0.40 | 1  | J    | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 78      | 31-142         |      | Phenol-d6        | 80      | 30-136         |      |
| Nitrobenzene-d5      | 73      | 28-139         |      | 2-Fluorobiphenyl | 55      | 33-144         |      |
| 2,4,6-Tribromophenol | 82      | 24-152         |      | p-Terphenyl-d14  | 88      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0518  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 26 of 27

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-776     | N/A             | Solid   | 09/16/00       | 09/20/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 89      | 31-142         |      | Phenol-d6        | 94      | 30-136         |      |
| Nitrobenzene-d5      | 89      | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 107     | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 27 of 27

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-782     | N/A             | Solid   | 09/16/00       | 09/21/00       | 0009162      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 90      | 31-142         |      | Phenol-d6        | 91      | 30-136         |      |
| Nitrobenzene-d5      | 93      | 28-139         |      | 2-Fluorobiphenyl | 96      | 33-144         |      |
| 2,4,6-Tribromophenol | 94      | 24-152         |      | p-Terphenyl-d14  | 100     | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers



## Quality Control - Spike/Spike Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|------------------|--------|------------|---------------|---------------|---------------------|
| S-14(00)-40      | Solid  | GC/MS P    | 09/16/00      | 09/22/00      | 00095188            |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 74      | 81       | 53-118  | 8   | 0-19   |            |
| 2-Chlorophenol             | 84      | 91       | 60-119  | 8   | 0-18   |            |
| 1,4-Dichlorobenzene        | 83      | 90       | 56-131  | 8   | 0-18   |            |
| N-Nitroso-di-n-propylamine | 84      | 91       | 64-123  | 8   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 86      | 93       | 52-144  | 8   | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 86      | 95       | 45-135  | 10  | 0-20   |            |
| Acenaphthene               | 85      | 91       | 45-152  | 7   | 0-18   |            |
| 4-Nitrophenol              | 102     | 103      | 45-135  | 1   | 0-20   |            |
| 2,4-Dinitrotoluene         | 83      | 89       | 42-128  | 7   | 0-23   |            |
| Pentachlorophenol          | 107     | 119      | 45-135  | 10  | 0-20   |            |
| Pyrene                     | 86      | 95       | 45-135  | 7   | 0-20   |            |



## Quality Control - Spike/Spike Duplicate

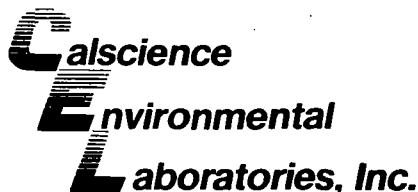
Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|------------------|--------|------------|---------------|---------------|---------------------|
| 00-09-0521-1     | Solid  | GC/MS P    | 09/16/00      | 09/22/00      | 00095211            |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 74      | 78       | 53-118  | 6   | 0-19   |            |
| 2-Chlorophenol             | 83      | 87       | 60-119  | 5   | 0-18   |            |
| 1,4-Dichlorobenzene        | 79      | 85       | 56-131  | 7   | 0-18   |            |
| N-Nitroso-di-n-propylamine | 83      | 87       | 64-123  | 5   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 82      | 88       | 52-144  | 7   | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 86      | 89       | 45-135  | 4   | 0-20   |            |
| Acenaphthene               | 86      | 88       | 45-152  | 3   | 0-18   |            |
| 4-Nitrophenol              | 86      | 87       | 45-135  | 1   | 0-20   |            |
| 2,4-Dinitrotoluene         | 81      | 83       | 42-128  | 2   | 0-23   |            |
| Pentachlorophenol          | 84      | 86       | 45-135  | 2   | 0-20   |            |
| Pyrene                     | 84      | 89       | 45-135  | 5   | 0-20   |            |



## Quality Control - LCS/LCS Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0518  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-782    | Solid  | GC/MS P    | 09/16/00      | 09/21/00      | 0009162               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 75       | 78        | 67-118  | 4   | 0-24   |            |
| 2-Chlorophenol             | 82       | 88        | 72-119  | 6   | 0-24   |            |
| 1,4-Dichlorobenzene        | 78       | 83        | 69-118  | 5   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 82       | 87        | 70-112  | 5   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 81       | 87        | 65-135  | 7   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 85       | 86        | 45-135  | 2   | 0-20   |            |
| Acenaphthene               | 84       | 86        | 61-142  | 3   | 0-25   |            |
| 4-Nitrophenol              | 92       | 94        | 45-135  | 1   | 0-20   |            |
| 2,4-Dinitrotoluene         | 85       | 84        | 47-137  | 1   | 0-24   |            |
| Pentachlorophenol          | 83       | 89        | 45-135  | 7   | 0-20   |            |
| Pyrene                     | 88       | 90        | 45-135  | 3   | 0-20   |            |



## Quality Control - LCS/LCS Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received:  
Work Order No:  
Preparation:  
Method:

09/15/00  
00-09-0518  
EPA 3545  
EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-776    | Solid  | GC/MS P    | 09/16/00      | 09/20/00      | 0009163               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 77       | 78        | 67-118  | 1   | 0-24   |            |
| 2-Chlorophenol             | 85       | 87        | 72-119  | 2   | 0-24   |            |
| 1,4-Dichlorobenzene        | 81       | 84        | 69-118  | 3   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 82       | 83        | 70-112  | 1   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 84       | 86        | 65-135  | 3   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 87       | 89        | 45-135  | 2   | 0-20   |            |
| Acenaphthene               | 85       | 86        | 61-142  | 1   | 0-25   |            |
| 4-Nitrophenol              | 90       | 95        | 45-135  | 6   | 0-20   |            |
| 2,4-Dinitrotoluene         | 83       | 85        | 47-137  | 2   | 0-24   |            |
| Pentachlorophenol          | 99       | 104       | 45-135  | 5   | 0-20   |            |
| Pyrene                     | 87       | 88        | 45-135  | 1   | 0-20   |            |



## GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-09-0518

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| <u>Qualifier</u> | <u>Definition</u>  |
|------------------|--|
| D                | The sample data was reported from a diluted analysis.              |
| J                | Analyte was detected at a concentration below the reporting limit. |
|                  | Reported value is estimated.                                       |
| ND               | Not detected at indicated reporting limit.                         |
| X                | % Recovery and/or RPD out-of-range.                                |

SCE - ROSEMEAD, CA

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

## CHAIN OF CUSTODY RECORD

Date 9/13/00

Page 1 of 3

|   |                        |                            |
|---|------------------------|----------------------------|
| LABORATORY CLIENT:<br><b>Southern California Edison Co.</b> |                        |                            |
| ADDRESS:<br>2244 Walnut Grove Avenue                        |                        |                            |
| CITY<br>Rosemead,   | STATE<br>CA            | ZIP<br>91770               |
| TEL:<br>626 / 302- 4033                                     | FAX:<br>626 / 302-9730 | E-MAIL:<br>weidner@sce.com |

SCE PROJECT NAME / NUMBER:  
**VISALIA STEAM REMEDIATION PROJ**

PROJECT CONTACT:

**RANDY WEIDNER**

SAMPLER(S): (SIGNATURE)

*Randy Weidner*

P.O. NO.:

QUOTE NO.:

LAB USE ONLY

**Q 9 - O S 1 8**

TURNAROUND TIME  
 SAME DAY    24 HR    48 HR    72 HRS    5 DAYS    10 DAYS

SPECIAL INSTRUCTIONS

## REQUESTED ANALYSES

| LAB USE ONLY | SAMPLE ID   | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX | NO. OF CONT. | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | TPH (g) (d) (o) | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) | SVOCs (8270C) | PEST / PCBs (8081A) | CAC, T22 METALS (6010A) | ICP / MS METALS (6020) | VOCs (TO-14) |
|--------------|-------------|----------------------|----------|------|--------|--------------|----------|----------------------|----------------------|------------------------|-----------------|---------------------|---------------------|--------------|---------------|---------------------|-------------------------|------------------------|--------------|
|              | 5-14(00)-5' |                      | 9/13     | 4:00 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -10'        |                      |          | 4:15 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -15'        |                      |          | 4:22 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -20'        |                      |          | 4:28 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -25'        |                      |          | 4:35 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -30         |                      |          | 4:40 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -35         |                      |          | 4:50 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -40         |                      |          | 4:55 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -45         |                      |          | 5:05 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |
|              | -50         |                      |          | 5:15 | S      | 1            |          |                      |                      |                        |                 | X                   |                     |              |               |                     |                         |                        |              |

Relinquished by: (Signature)

*Randy Weidner*

Received by: (Signature)

Date: 9/15/00 Time: 1:30 PM

Relinquished by: (Signature)

Received by: (Signature)

Date: 9/15/00 Time:

Relinquished by: (Signature)

Received for Laboratory by: (Signature)

Date: 09/15/00 Time: 1330

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

SCE ROSEMEAD, CA

## ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

## CHAIN OF CUSTODY RECORD

Date 9/14/00

Page 2 of 3

|                        |                        |                                |  |  |
|------------------------|------------------------|--------------------------------|--|--|
| LABORATORY CLIENT:     |                        | Southern California Edison Co. |  |  |
| ADDRESS:               |                        | 2244 Walnut Grove Avenue       |  |  |
| CITY                   | STATE                  | ZIP                            |  |  |
| Rosemead,              | CA                     | 91770                          |  |  |
| TEL:<br>626 / 302-4033 | FAX:<br>626 / 302-9730 | E-MAIL:<br>Weidner@sce.com     |  |  |

|  |   |
|--|---|
| SCE PROJECT NAME / NUMBER:<br><b>VISALIA STEAM REMEDIATION PROJECT</b> | P.O. NO.:   |
| PROJECT CONTACT:<br><b>RANDY WEIDNER</b>                               | QUOTE NO.:  |
| SAMPLER(S) (SIGNATURE)<br><i>Randy Weidner</i>                         | LAB USE ONLY<br><input type="checkbox"/> <input checked="" type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

## SPECIAL INSTRUCTIONS

| LAB<br>USE<br>ONLY | SAMPLE ID   | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX | NO. OF<br>CONT. | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | TPH (g) (d) (o) | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) | SVOCs (8270C) | PEST / PCBs (8081A) | CAC, T22 METALS (6010A) | ICP / MS METALS (6020) | PNAs (8310) | VOCs (TO-14) |
|--------------------|-------------|----------------------|----------|------|--------|-----------------|----------|----------------------|----------------------|------------------------|-----------------|---------------------|---------------------|--------------|---------------|---------------------|-------------------------|------------------------|-------------|--------------|
|                    |             |                      | DATE     | TIME |        |                 |          |                      |                      |                        |                 |                     |                     |              |               |                     |                         |                        |             |              |
|                    | 5-14(00)-55 | 7/14                 | 7:30     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -60         |                      | 7:40     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -65         |                      | 7:55     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -70         |                      | 8:05     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -75         |                      | 8:20     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -80         |                      | 8:35     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -85         |                      | 8:45     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -90         |                      | 9:30     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -95         |                      | 9:40     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |
|                    | -100        |                      | 9:50     | S    | S      | 1               |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |             |              |

Relinquished by: (Signature)  
*Randy Weidner*

Received by: (Signature)

Date: 9/15/00 Time: 1:30 PM

Relinquished by: (Signature)

Received by: (Signature)

Date: Time:

Relinquished by: (Signature)

Received by Laboratory by: (Signature)  
*R. Fales*

Date: 09/15/00 Time: 1330

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

SCE ROSEMEAD, CA

ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

CHAIN OF CUSTODY RECORD

Date 9/14/00

Page 3 of 3

|  |                        |                                       |  |  |
|--|------------------------|---------------------------------------|--|--|
| LABORATORY CLIENT:   |                        | <b>Southern California Edison Co.</b> |  |  |
| ADDRESS: <b>2244 Walnut Grove Avenue</b>   |                        |                                       |  |  |
| CITY<br><b>Rosemead,</b>   | STATE<br><b>CA</b>     | ZIP<br><b>91770</b>                   |  |  |
| TEL:<br>626 / 302- <u>4033</u>   | FAX:<br>626 / 302-9730 | E-MAIL:<br><u>weldners@sce.com</u>    |  |  |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HRS <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> 10 DAYS |                        |                                       |  |  |
| SPECIAL INSTRUCTIONS   |                        |                                       |  |  |

|   |  |
|---|--|
| SCE PROJECT NAME / NUMBER:<br><b>VISALIA STEAM REMEDIATION PROJ</b> | P.O. NO.:  |
| PROJECT CONTACT:<br><b>RANDY WEIDNER</b>                            | QUOTE NO.:   |
| SAMPLER(S) (SIGNATURE)<br><u>Randy Weldner</u>                      | LAB USE ONLY<br><input type="checkbox"/> 2 - <input type="checkbox"/> 5 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 8 |

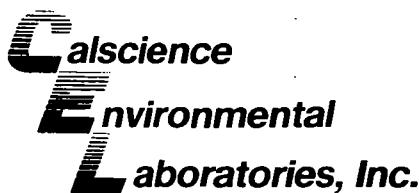
| REQUESTED ANALYSES |                 |                      |          |       |        |              |          |                      |                      |                        |
|--------------------|-----------------|----------------------|----------|-------|--------|--------------|----------|----------------------|----------------------|------------------------|
| LAB USE ONLY       | SAMPLE ID       | LOCATION/DESCRIPTION | SAMPLING |       | MATRIX | NO. OF CONT. | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm |
|                    |                 |                      | DATE     | TIME  |        |              |          |                      |                      | TPH (g), (d) (o)       |
|                    | 5-14(00) -101.5 |                      | 9/14     | 10:00 | S      | 1            |          |                      |                      | X                      |
|                    | -105            |                      |          | 10:05 | S      | 1            |          |                      |                      | X                      |
|                    | -110            |                      |          | 10:20 | S      | 1            |          |                      |                      | X                      |
|                    | 111.5           |                      |          | 10:25 | S      | 1            |          |                      |                      | X                      |
|                    | -115            |                      |          | 10:35 | S      | 1            |          |                      |                      | X                      |

|  |  |                       |                      |
|--|--|-----------------------|----------------------|
| Relinquished by: (Signature)<br><u>Randy Weldner</u> | Received by: (Signature)                                 | Date: <u>9/15/00</u>  | Time: <u>1:30 PM</u> |
| Relinquished by: (Signature)                         | Received by: (Signature)                                 | Date: <u>9/15/00</u>  | Time: <u>1:30 PM</u> |
| Relinquished by: (Signature)                         | Received by Laboratory by: (Signature)<br><u>A. Tane</u> | Date: <u>09/15/00</u> | Time: <u>1330</u>    |

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

9/27/97 Revision

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE



September 29, 2000

Randy Weidner  
Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Subject: **Calscience Work Order No.: 00-09-0521**  
**Client Reference: SCE VPY Steam Remediation**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 09/15/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

A handwritten signature in black ink, appearing to read "William H. Christensen".

Calscience Environmental  
Laboratories, Inc.  
William H. Christensen  
Quality Assurance Manager

A handwritten signature in black ink, appearing to read "William H. Christensen".

William H. Christensen  
Quality Assurance Manager



## ANALYTICAL REPORT

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 1 of 16

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-10           | 00-09-0521-1       | 09/14/00        | Solid   | 09/16/00       | 09/21/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 74      | 31-142         |      | Phenol-d6        | 77      | 30-136         |      |
| Nitrobenzene-d5      | 77      | 28-139         |      | 2-Fluorobiphenyl | 77      | 33-144         |      |
| 2,4,6-Tribromophenol | 72      | 24-152         |      | p-Terphenyl-d14  | 77      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

Page 2 of 16

| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-20           | 00-09-0521-2       | 09/14/00        | Solid   | 09/16/00       | 09/21/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 79      | 31-142         |      | Phenol-d6        | 83      | 30-136         |      |
| Nitrobenzene-d5      | 81      | 28-139         |      | 2-Fluorobiphenyl | 83      | 33-144         |      |
| 2,4,6-Tribromophenol | 78      | 24-152         |      | p-Terphenyl-d14  | 87      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-30           | 00-09-0521-3       | 09/14/00        | Solid   | 09/16/00       | 09/21/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 84      | 31-142         |      | Phenol-d6        | 85      | 30-136         |      |
| Nitrobenzene-d5      | 84      | 28-139         |      | 2-Fluorobiphenyl | 85      | 33-144         |      |
| 2,4,6-Tribromophenol | 80      | 24-152         |      | p-Terphenyl-d14  | 86      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-40           | 00-09-0521-4       | 09/14/00        | Solid   | 09/16/00       | 09/21/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 78      | 31-142         |      | Phenol-d6        | 80      | 30-136         |      |
| Nitrobenzene-d5      | 80      | 28-139         |      | 2-Fluorobiphenyl | 80      | 33-144         |      |
| 2,4,6-Tribromophenol | 72      | 24-152         |      | p-Terphenyl-d14  | 83      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-45           | 00-09-0521-5       | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 76      | 31-142         |      | Phenol-d6        | 79      | 30-136         |      |
| Nitrobenzene-d5      | 79      | 28-139         |      | 2-Fluorobiphenyl | 80      | 33-144         |      |
| 2,4,6-Tribromophenol | 76      | 24-152         |      | p-Terphenyl-d14  | 83      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-50           | 00-09-0521-6       | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenzo (a,h) Anthracene    | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      | mg/kg |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 81      | 31-142         |      | Phenol-d6        | 82      | 30-136         |      |
| Nitrobenzene-d5      | 81      | 28-139         |      | 2-Fluorobiphenyl | 78      | 33-144         |      |
| 2,4,6-Tribromophenol | 77      | 24-152         |      | p-Terphenyl-d14  | 84      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-55           | 00-09-0521-7       | 09/14/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.28   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.17   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.14   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | 0.16   | 0.40 | 1  | J    | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | 0.65   | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | 0.15   | 0.40 | 1  | J    | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | 0.19   | 0.40 | 1  | J    | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | 0.12   | 0.35 | 1  | J    | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      | mg/kg |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 81      | 31-142         |      | Phenol-d6        | 84      | 30-136         |      |
| Nitrobenzene-d5      | 80      | 28-139         |      | 2-Fluorobiphenyl | 71      | 33-144         |      |
| 2,4,6-Tribromophenol | 78      | 24-152         |      | p-Terphenyl-d14  | 82      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-60           | 00-09-0521-8       | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.29   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.21   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.14   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | 0.31   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 80      | 31-142         |      | Phenol-d6        | 83      | 30-136         |      |
| Nitrobenzene-d5      | 83      | 28-139         |      | 2-Fluorobiphenyl | 82      | 33-144         |      |
| 2,4,6-Tribromophenol | 79      | 24-152         |      | p-Terphenyl-d14  | 86      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-70           | 00-09-0521-9       | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.19   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.11   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 80      | 31-142         |      | Phenol-d6        | 82      | 30-136         |      |
| Nitrobenzene-d5      | 76      | 28-139         |      | 2-Fluorobiphenyl | 72      | 33-144         |      |
| 2,4,6-Tribromophenol | 76      | 24-152         |      | p-Terphenyl-d14  | 83      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-80           | 00-09-0521-10      | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 79      | 31-142         |      | Phenol-d6        | 81      | 30-136         |      |
| Nitrobenzene-d5      | 78      | 28-139         |      | 2-Fluorobiphenyl | 79      | 33-144         |      |
| 2,4,6-Tribromophenol | 73      | 24-152         |      | p-Terphenyl-d14  | 80      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-90           | 00-09-0521-11      | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 76      | 31-142         |      | Phenol-d6        | 76      | 30-136         |      |
| Nitrobenzene-d5      | 77      | 28-139         |      | 2-Fluorobiphenyl | 76      | 33-144         |      |
| 2,4,6-Tribromophenol | 69      | 24-152         |      | p-Terphenyl-d14  | 79      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-100          | 00-09-0521-12      | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 0.14   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphénol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 83      | 31-142         |      | Phenol-d6        | 83      | 30-136         |      |
| Nitrobenzene-d5      | 82      | 28-139         |      | 2-Fluorobiphenyl | 83      | 33-144         |      |
| 2,4,6-Tribromophenol | 78      | 24-152         |      | p-Terphenyl-d14  | 86      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

**ANALYTICAL REPORT**

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-104.5        | 00-09-0521-13      | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3,4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | 0.17   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 78      | 31-142         |      | Phenol-d6        | 79      | 30-136         |      |
| Nitrobenzene-d5      | 78      | 28-139         |      | 2-Fluorobiphenyl | 77      | 33-144         |      |
| 2,4,6-Tribromophenol | 74      | 24-152         |      | p-Terphenyl-d14  | 83      | 23-160         |      |

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-110          | 00-09-0521-14      | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.61   | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.37   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.18   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 82      | 31-142         |      | Phenol-d6        | 84      | 30-136         |      |
| Nitrobenzene-d5      | 81      | 28-139         |      | 2-Fluorobiphenyl | 79      | 33-144         |      |
| 2,4,6-Tribromophenol | 79      | 24-152         |      | p-Terphenyl-d14  | 84      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers

# ANALYTICAL REPORT

Southern California Edison  
 2244 Walnut Grove Avenue  
 Rosemead, CA 91770

Date Received: 09/15/00  
 Work Order No: 00-09-0521  
 Preparation: EPA 3545  
 Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| B-94(00)-115          | 00-09-0521-15      | 09/15/00        | Solid   | 09/16/00       | 09/22/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | 0.30   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | 0.16   | 0.40 | 1  | J    | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | 0.11   | 0.40 | 1  | J    | mg/kg |
| Naphthalene                  | 0.20   | 0.40 | 1  | J    | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | 0.16   | 0.40 | 1  | J    | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | 0.11   | 0.40 | 1  | J    | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenz (a,h) Anthracene     | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 83      | 31-142         |      | Phenol-d6        | 84      | 30-136         |      |
| Nitrobenzene-d5      | 86      | 28-139         |      | 2-Fluorobiphenyl | 86      | 33-144         |      |
| 2,4,6-Tribromophenol | 80      | 24-152         |      | p-Terphenyl-d14  | 89      | 23-160         |      |

RL - Reporting Limit      DF - Dilution Factor      Qual - Qualifiers

**ANALYTICAL REPORT**

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

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| Client Sample Number: | Lab Sample Number: | Date Collected: | Matrix: | Date Prepared: | Date Analyzed: | QC Batch ID: |
|-----------------------|--------------------|-----------------|---------|----------------|----------------|--------------|
| Method Blank          | 099-04-010-776     | N/A             | Solid   | 09/16/00       | 09/20/00       | 0009163      |

| Parameter                    | Result | RL   | DF | Qual | Units | Parameter                   | Result | RL   | DF | Qual | Units |
|------------------------------|--------|------|----|------|-------|-----------------------------|--------|------|----|------|-------|
| N-Nitrosodimethylamine       | ND     | 0.50 | 1  |      | mg/kg | 2,4-Dinitrophenol           | ND     | 2.5  | 1  |      | mg/kg |
| Aniline                      | ND     | 0.50 | 1  |      | mg/kg | 4-Nitrophenol               | ND     | 0.50 | 1  |      | mg/kg |
| Phenol                       | ND     | 0.50 | 1  |      | mg/kg | Dibenzofuran                | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethyl) Ether     | ND     | 2.5  | 1  |      | mg/kg | 2,4-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 2-Chlorophenol               | ND     | 0.50 | 1  |      | mg/kg | 2,6-Dinitrotoluene          | ND     | 0.50 | 1  |      | mg/kg |
| 1,3-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | Diethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg |
| 1,4-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Chlorophenyl-Phenyl Ether | ND     | 0.50 | 1  |      | mg/kg |
| Benzyl Alcohol               | ND     | 0.50 | 1  |      | mg/kg | Fluorene                    | ND     | 0.40 | 1  |      | mg/kg |
| 1,2-Dichlorobenzene          | ND     | 0.50 | 1  |      | mg/kg | 4-Nitroaniline              | ND     | 0.50 | 1  |      | mg/kg |
| 2-Methylphenol               | ND     | 0.50 | 1  |      | mg/kg | Azobenzene                  | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroisopropyl) Ether | ND     | 0.50 | 1  |      | mg/kg | 4,6-Dinitro-2-Methylphenol  | ND     | 2.5  | 1  |      | mg/kg |
| 3/4-Methylphenol             | ND     | 0.50 | 1  |      | mg/kg | N-Nitrosodiphenylamine      | ND     | 0.50 | 1  |      | mg/kg |
| N-Nitroso-di-n-propylamine   | ND     | 0.50 | 1  |      | mg/kg | 2,4,6-Trichlorophenol       | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloroethane             | ND     | 0.50 | 1  |      | mg/kg | 4-Bromophenyl-Phenyl Ether  | ND     | 0.50 | 1  |      | mg/kg |
| Nitrobenzene                 | ND     | 2.5  | 1  |      | mg/kg | Hexachlorobenzene           | ND     | 0.50 | 1  |      | mg/kg |
| Isophorone                   | ND     | 0.50 | 1  |      | mg/kg | Pentachlorophenol           | ND     | 2.5  | 1  |      | mg/kg |
| 2-Nitrophenol                | ND     | 0.50 | 1  |      | mg/kg | Phenanthrene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dimethylphenol           | ND     | 0.50 | 1  |      | mg/kg | Anthracene                  | ND     | 0.40 | 1  |      | mg/kg |
| Benzoic Acid                 | ND     | 2.5  | 1  |      | mg/kg | Di-n-Butyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| Bis(2-Chloroethoxy) Methane  | ND     | 0.50 | 1  |      | mg/kg | Fluoranthene                | ND     | 0.40 | 1  |      | mg/kg |
| 2,4-Dichlorophenol           | ND     | 0.50 | 1  |      | mg/kg | Benzidine                   | ND     | 10   | 1  |      | mg/kg |
| 1,2,4-Trichlorobenzene       | ND     | 0.50 | 1  |      | mg/kg | Pyrene                      | ND     | 0.40 | 1  |      | mg/kg |
| Naphthalene                  | ND     | 0.40 | 1  |      | mg/kg | Pyridine                    | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloroaniline              | ND     | 0.50 | 1  |      | mg/kg | Butyl Benzyl Phthalate      | ND     | 0.50 | 1  |      | mg/kg |
| Hexachloro-1,3-Butadiene     | ND     | 0.50 | 1  |      | mg/kg | 3,3'-Dichlorobenzidine      | ND     | 0.50 | 1  |      | mg/kg |
| 4-Chloro-3-Methylphenol      | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Anthracene        | ND     | 0.40 | 1  |      | mg/kg |
| 2-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Bis(2-Ethylhexyl) Phthalate | ND     | 0.50 | 1  |      | mg/kg |
| 1-Methylnaphthalene          | ND     | 0.40 | 1  |      | mg/kg | Chrysene                    | ND     | 0.40 | 1  |      | mg/kg |
| Hexachlorocyclopentadiene    | ND     | 1.5  | 1  |      | mg/kg | Di-n-Octyl Phthalate        | ND     | 0.50 | 1  |      | mg/kg |
| 2,4,5-Trichlorophenol        | ND     | 0.50 | 1  |      | mg/kg | Benzo (b) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Chloronaphthalene          | ND     | 0.50 | 1  |      | mg/kg | Benzo (k) Fluoranthene      | ND     | 0.40 | 1  |      | mg/kg |
| 2-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (a) Pyrene            | ND     | 0.35 | 1  |      | mg/kg |
| Dimethyl Phthalate           | ND     | 0.50 | 1  |      | mg/kg | Indeno (1,2,3-c,d) Pyrene   | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthylene               | ND     | 0.40 | 1  |      | mg/kg | Dibenzo (a,h) Anthracene    | ND     | 0.40 | 1  |      | mg/kg |
| 3-Nitroaniline               | ND     | 0.50 | 1  |      | mg/kg | Benzo (g,h,i) Perylene      | ND     | 0.40 | 1  |      | mg/kg |
| Acenaphthene                 | ND     | 0.40 | 1  |      | mg/kg |                             |        |      |    |      |       |

| Surrogates:          | REC (%) | Control Limits | Qual | Surrogates:      | REC (%) | Control Limits | Qual |
|----------------------|---------|----------------|------|------------------|---------|----------------|------|
| 2-Fluorophenol       | 89      | 31-142         |      | Phenol-d6        | 94      | 30-136         |      |
| Nitrobenzene-d5      | 89      | 28-139         |      | 2-Fluorobiphenyl | 94      | 33-144         |      |
| 2,4,6-Tribromophenol | 107     | 24-152         |      | p-Terphenyl-d14  | 93      | 23-160         |      |

RL - Reporting Limit

DF - Dilution Factor

Qual - Qualifiers



## Quality Control - Spike/Spike Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| Spiked Sample ID | Matrix | Instrument | Date Prepared | Date Analyzed | MS/MSD Batch Number |
|------------------|--------|------------|---------------|---------------|---------------------|
| B-94(00)-10      | Solid  | GC/MS P    | 09/16/00      | 09/22/00      | 00095211            |

| Parameter                  | MS %REC | MSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|---------|----------|---------|-----|--------|------------|
| Phenol                     | 74      | 78       | 53-118  | 6   | 0-19   |            |
| 2-Chlorophenol             | 83      | 87       | 60-119  | 5   | 0-18   |            |
| 1,4-Dichlorobenzene        | 79      | 85       | 56-131  | 7   | 0-18   |            |
| N-Nitroso-di-n-propylamine | 83      | 87       | 64-123  | 5   | 0-18   |            |
| 1,2,4-Trichlorobenzene     | 82      | 88       | 52-144  | 7   | 0-17   |            |
| 4-Chloro-3-Methylphenol    | 86      | 89       | 45-135  | 4   | 0-20   |            |
| Acenaphthene               | 86      | 88       | 45-152  | 3   | 0-18   |            |
| 4-Nitrophenol              | 86      | 87       | 45-135  | 1   | 0-20   |            |
| 2,4-Dinitrotoluene         | 81      | 83       | 42-128  | 2   | 0-23   |            |
| Pentachlorophenol          | 84      | 86       | 45-135  | 2   | 0-20   |            |
| Pyrene                     | 84      | 89       | 45-135  | 5   | 0-20   |            |



## Quality Control - LCS/LCS Duplicate

Southern California Edison  
2244 Walnut Grove Avenue  
Rosemead, CA 91770

Date Received: 09/15/00  
Work Order No: 00-09-0521  
Preparation: EPA 3545  
Method: EPA 8270C

Project: SCE VPY Steam Remediation

| LCS Sample Number | Matrix | Instrument | Date Prepared | Date Analyzed | LCS/LCSD Batch Number |
|-------------------|--------|------------|---------------|---------------|-----------------------|
| 099-04-010-776    | Solid  | GC/MS P    | 09/16/00      | 09/20/00      | 0009163               |

| Parameter                  | LCS %REC | LCSD %REC | %REC CL | RPD | RPD CL | Qualifiers |
|----------------------------|----------|-----------|---------|-----|--------|------------|
| Phenol                     | 77       | 78        | 67-118  | 1   | 0-24   |            |
| 2-Chlorophenol             | 85       | 87        | 72-119  | 2   | 0-24   |            |
| 1,4-Dichlorobenzene        | 81       | 84        | 69-118  | 3   | 0-27   |            |
| N-Nitroso-di-n-propylamine | 82       | 83        | 70-112  | 1   | 0-24   |            |
| 1,2,4-Trichlorobenzene     | 84       | 86        | 65-135  | 3   | 0-25   |            |
| 4-Chloro-3-Methylphenol    | 87       | 89        | 45-135  | 2   | 0-20   |            |
| Acenaphthene               | 85       | 86        | 61-142  | 1   | 0-25   |            |
| 4-Nitrophenol              | 90       | 95        | 45-135  | 6   | 0-20   |            |
| 2,4-Dinitrotoluene         | 83       | 85        | 47-137  | 2   | 0-24   |            |
| Pentachlorophenol          | 99       | 104       | 45-135  | 5   | 0-20   |            |
| Pyrene                     | 87       | 88        | 45-135  | 1   | 0-20   |            |



## GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 00-09-0521

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| <u>Qualifier</u> | <u>Definition</u>  |
|------------------|--|
| J                | Analyte was detected at a concentration below the reporting limit.<br>Reported value is estimated. |
| ND               | Not detected at indicated reporting limit.   |

SCE - ROSEMEAD, CA

ENVIRONMENTAL AFFAIRS

GO1, ROOM 405

CHAIN OF CUSTODY RECORD

Date 9/14/00

Page 1 of 2

|                                   |                     |                                       |  |  |
|-----------------------------------|---------------------|---------------------------------------|--|--|
| LABORATORY CLIENT:                |                     | <b>Southern California Edison Co.</b> |  |  |
| ADDRESS: 2244 Walnut Grove Avenue |                     |                                       |  |  |
| CITY                              | STATE               | ZIP                                   |  |  |
| Rosemead,                         | CA                  | 91770                                 |  |  |
| TEL: 626 / 302- <u>4033</u>       | FAX: 626 / 302-9730 | E-MAIL: <u>Weidner@sce.com</u>        |  |  |

SCE PROJECT NAME / NUMBER:  
**VISALIA STEAM REMEDIATION PROJ.**  
PROJECT CONTACT:  
**RANDY WEIDNER**  
SAMPLER(S): (SIGNATURE)  
Randy Weidner

P.O. NO.:

QUOTE NO.:

LAB USE ONLY

-

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

SPECIAL INSTRUCTIONS

| LAB USE ONLY | SAMPLE ID   | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX | NO. OF CONT. | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | TPH (g), (d), (o) | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) | SVOCs (8270C) | PEST / PCBs (8081A) | CAC, T22 METALS (6010A) | ICP / MS METALS (6020) | PNAs (8310) | VOCs (TO-14) |
|--------------|-------------|----------------------|----------|------|--------|--------------|----------|----------------------|----------------------|------------------------|-------------------|---------------------|---------------------|--------------|---------------|---------------------|-------------------------|------------------------|-------------|--------------|
|              |             |                      | DATE     | TIME |        |              |          |                      |                      |                        |                   |                     |                     |              |               |                     |                         |                        |             |              |
|              | B-94(00)-10 |                      | 9/14     | 3:20 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -20         |                      |          | 3:30 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -30         |                      |          | 3:40 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -40         |                      |          | 3:50 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -45         |                      |          | 4:00 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -50         |                      |          | 4:10 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -55         |                      |          | 4:20 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -60         |                      | 9/15     | 7:27 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -70         |                      |          | 7:40 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |
|              | -80         |                      |          | 8:00 |        |              |          |                      |                      |                        |                   |                     |                     |              | X             |                     |                         |                        |             |              |

Relinquished by: (Signature)  
Randy Weidner

Received by: (Signature)

Date: 9/15/00 Time: 1:30 pm

Relinquished by: (Signature)

Received by: (Signature)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: (Signature)

Received for Laboratory by: (Signature)  
R. Hale

Date: 09/15/00 Time: 1330

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

9/27/97 Revision

**SCE - ROSEMEAD, CA**  
**ENVIRONMENTAL AFFAIRS**  
**GO1, ROOM 405**

**CHAIN OF CUSTODY RECORD**

Date 9/15/00

Page 2 of 2

|                                   |                     |                                       |  |  |
|-----------------------------------|---------------------|---------------------------------------|--|--|
| LABORATORY CLIENT:                |                     | <b>Southern California Edison Co.</b> |  |  |
| ADDRESS: 2244 Walnut Grove Avenue |                     |                                       |  |  |
| CITY                              | STATE               | ZIP                                   |  |  |
| Rosemead,                         | CA                  | 91770                                 |  |  |
| TEL: 626 / 302- <u>4033</u>       | FAX: 626 / 302-9730 | E-MAIL: <u>Weidner.sce.com</u>        |  |  |

SCE PROJECT NAME / NUMBER:  
VISALIA STEAM REMEDIATION PROJ.  
PROJECT CONTACT:  
RANDY WEIDNER  
SAMPLER(S) (SIGNATURE)  
R.W. Weidner

P.O. NO.:  
  
QUOTE NO.:  
  
LAB USE ONLY  
  -

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HRS  5 DAYS  10 DAYS

SPECIAL INSTRUCTIONS

| LAB<br>USE<br>ONLY | SAMPLE ID  | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX | NO. OF<br>CONT. |          |                      |                      |                        |                 |                     |                     |              |               |                     |                         |                        |
|--------------------|------------|----------------------|----------|------|--------|-----------------|----------|----------------------|----------------------|------------------------|-----------------|---------------------|---------------------|--------------|---------------|---------------------|-------------------------|------------------------|
|                    |            |                      | DATE     | TIME |        |                 | EPA 8280 | EPA 525.2 (SCE LIST) | EPA 8270C (SCE LIST) | TPH (d), RL = 0.05 ppm | TPH (g) (d) (o) | BTEX / MTBE (8021B) | HALOCARBONS (8026B) | VOCs (8260B) | SVOCs (8270C) | FEST / PCBs (8081A) | CAC. T22 METALS (6010A) | ICP / MS METALS (6020) |
| x                  | B-94(0)-90 |                      | 9/15     | 8:14 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
|                    | -100       |                      |          | 8:25 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
|                    | -101.5     |                      |          | 8:30 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
| x                  | -103       |                      |          | 8:40 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
| x                  | -104.5     |                      |          | 8:45 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
|                    | -106       |                      |          | 8:50 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
| x                  | -110       |                      |          | 9:07 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |
|                    | -115       |                      |          | 9:15 |        |                 |          |                      |                      |                        |                 |                     |                     | X            |               |                     |                         |                        |

|   |   |                       |                      |
|---|---|-----------------------|----------------------|
| Relinquished by: (Signature)<br><u>R.W. Weidner</u> | Received by: (Signature)                                  | Date: <u>9/15/00</u>  | Time: <u>1:30 PM</u> |
| Relinquished by: (Signature)                        | Received by: (Signature)                                  | Date: <u>9/15/00</u>  | Time: <u></u>        |
| Relinquished by: (Signature)                        | Received for Laboratory by: (Signature)<br><u>R. Lane</u> | Date: <u>09/15/00</u> | Time: <u>1:30</u>    |

All turnaround times are based on working hours of 8:30 a.m. - 5:30 p.m. M - F. Unless otherwise requested, all samples will be disposed of 30 days after receipt.

DISTRIBUTION: White with final report, Yellow to File, Pink to SCE

**SEVERN  
TRENT  
SERVICES**

December 5, 2000

**STL SACRAMENTO PROJECT NUMBER: G0J260325  
PO/CONTRACT: M4048901**

Randy Weidner  
Conservation Financing Corp.  
Southern California Edison  
P.O. Box 800  
Rosemead, CA 91770

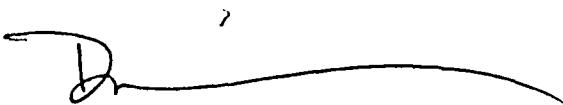
Dear Mr. Weidner,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on 10/26/00. These samples are associated with your Visalia Pole Yard project.

All applicable quality control procedures met method-specified acceptance criteria, except as noted on the following page.

If you have any questions, please feel free to call me at (916)374-4362.

Sincerely,

  
Diana Brooks  
Project Manager

## CASE NARRATIVE

STL SACRAMENTO PROJECT NUMBER G0J260325

### SOLID, 8280, Dioxins/Furans, HRGC/LRMS

The laboratory control sample associated with your samples shows the PCDF recovery above control limits. All samples are "not detected" for this analyte, thus no further corrective action was needed.

All samples show an OCDD concentration above the calibration level of the curve and many of these samples had ratios outside of control limits for the 13C-OCDD internal standard due to contribution to the internal standard.

Sample MW-34/B-19 (00) - 40 was diluted due to saturation of OCDD on the detector. The sample also had to be calculated against the 13C-HpCDF internal standard due to matrix interference in the 13C-OCDD internal standard.

There were no other anomalies associated with this project.

**STL SACRAMENTO**  
**Quality Control Definitions**

| QC Parameter                                     | Definition  |
|--|---|
| QC Batch   | A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.  |
| Duplicate Control Sample (DCS)                   | Consist of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects. This QC is performed only if required by client or when insufficient sample is available to perform MS/MSD.   |
| Duplicate Sample (DU)                            | A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch.                             |
| Laboratory Control Sample (LCS)                  | A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. An LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects.   |
| Matrix Spike and Matrix Spike Duplicate (MS/MSD) | A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MSs/MSDs are carried through the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked. |
| Method Blank (MB)                                | A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps.   |
| Surrogate Spike                                  | Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process.  |

Source: STL Sacramento® Quality Control Program, Policy QA-003, Rev. 0, 8/19/96.

# SAMPLE SUMMARY

G0J260325

| WO #  | SAMPLE# | CLIENT SAMPLE ID  | DATE     | TIME |
|-------|---------|-------------------|----------|------|
| DNWCD | 001     | B-75(00)-30       | 09/11/00 |      |
| DNWCM | 002     | B-75(00)-50       | 09/11/00 |      |
| DNWCN | 003     | S-14(00)-35       | 09/13/00 |      |
| DNWCQ | 004     | S-14(00)-45       | 09/13/00 |      |
| DNWCT | 005     | S-14(00)-50       | 09/13/00 |      |
| DNWCW | 006     | B-82/EW-1(00)-5   | 09/12/00 |      |
| DNWC3 | 007     | B-82/EW-1(00)-10  | 09/12/00 |      |
| DNWCS | 008     | B-82/EW-1(00)-25  | 09/12/00 |      |
| DNWC8 | 009     | B-82/EW-1(00)-30  | 09/12/00 |      |
| DNWDA | 010     | B-82/EW-1(00)-40  | 09/12/00 |      |
| DNWDD | 011     | MW-34/B-19(00)-5  | 09/12/00 |      |
| DNWDP | 012     | MW-34/B-19(00)-10 | 09/12/00 |      |
| DNWDQ | 013     | MW-34/B-19(00)-25 | 09/12/00 |      |
| DNWDR | 014     | MW-34/B-19(00)-30 | 09/12/00 |      |
| DNWDV | 015     | MW-34/B-19(00)-40 | 09/12/00 |      |

## NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

**BODA CHIES, INC.**

7440 LINCOLN WAY

GARDEN GROVE, CA 92841-1432

TEL: (714) 895-5494 • FAX: (714) 894-7501

Date 10/25/00

Page 1 of 2

|   |       |         |
|---|-------|---------|
| LABORATORY CLIENT:<br><b>Southern California Edison Company</b> |       |         |
| ADDRESS:<br><b>2244 Walnut Grove Avenue</b>                     |       |         |
| CITY<br><b>Rosemead, CA 91770</b>                               | STATE | ZIP     |
| TEL:  | FAX:  | E-MAIL: |

|   |  |  |
|---|--|--|
| CLIENT PROJECT NAME / NUMBER:<br><b>SCE VPY Steam Remediation</b>   |  |  |
| PROJECT CONTACT:<br><b>C. Eaker / R. Weidner</b>  |  |  |
| SAMPLER(S): (SIGNATURE)   |  |  |
| P.O. NO.: _____   |  |  |
| LAB USE ONLY: <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> |  |  |
| COOLER RECEIPT<br>TEMP = _____ °C   |  |  |

TURNAROUND TIME  
 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)  
 RWQCB REPORTING  ARCHIVE SAMPLES UNTIL \_\_\_\_ / \_\_\_\_ / \_\_\_\_.

SPECIAL INSTRUCTIONS Report and invoice to SCE. Refer any questions to C. Eaker (626/302-8531 eakercl@sce.com) or R. Weidner (626/302-4033 weidners@sce.com).

### REQUESTED ANALYSES

| LAB USE ONLY | SAMPLE ID        | LOCATION/DESCRIPTION | SAMPLING |      | MATRIX | NO. OF CONT. | TPH (G) | TPH (D) or | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) EnCore | SVOCs (8270C) | PEST (8081A) | EOB / DBCP (504.1) or (8011) | CAC, T22 METALS (8010B) | PNAs (8310) | VOCs (T0-14A) or (T0-15) | CH <sub>4</sub> / TGNMO (25.1) | FIXED GASES (25.1) or (D1946) | EPA 8280 Modified | for SCE |
|--------------|------------------|----------------------|----------|------|--------|--------------|---------|------------|---------------------|---------------------|---------------------|---------------|--------------|------------------------------|-------------------------|-------------|--------------------------|--------------------------------|-------------------------------|-------------------|---------|
|              |                  |                      | DATE     | TIME |        |              | TPH (G) | TPH (D) or | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) EnCore | SVOCs (8270C) | PEST (8081A) | EOB / DBCP (504.1) or (8011) | CAC, T22 METALS (8010B) | PNAs (8310) | VOCs (T0-14A) or (T0-15) | CH <sub>4</sub> / TGNMO (25.1) | FIXED GASES (25.1) or (D1946) | EPA 8280 Modified | for SCE |
|              | B-75(00)-30      |                      | 9/11/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | B-75(00)-50      |                      | 9/11/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | S-14(00)-35      |                      | 9/13/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | S-14(00)-45      |                      | 9/13/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | S-14(00)-50      |                      | 9/13/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | B-82/EW-1(00)-5  |                      | 9/12/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | B-82/EW-1(00)-10 |                      | 9/12/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | B-82/EW-1(00)-25 |                      | 9/12/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | B-82/EW-1(00)-30 |                      | 9/12/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |
|              | B-82/EW-1(00)-40 |                      | 9/13/00  |      | S      | 1            |         |            |                     |                     |                     |               |              |                              |                         |             |                          | X                              |                               |                   |         |

Relinquished by: (Signature)

Received by: (Signature)

Date: 10/25/00

Time: 1610

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

Relinquished by: (Signature)

Received for Laboratory by: (Signature)

Date: 10/26/00

Time: 1355

SHIPPED VIA FEDEX, AIRBILL NO. 7911 3796 2820

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10/01/00 Revision

**ABOMAI UNITS, INC.**  
7440 LINCOLN WAY  
GARDEN GROVE, CA 92841-1432  
TEL: (714) 895-5494 • FAX: (714) 894-7501

Date 10/25/00

Page 2 of 2

| LABORATORY CLIENT:<br><b>Southern California Edison Company</b>  |                   |                      |          |               |        | CLIENT PROJECT NAME / NUMBER:<br><b>SCE VPY Steam Remediation</b> |         |                  |                     |                     |              | P.O. NO.:  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
|--|-------------------|----------------------|----------|---------------|--------|---|---------|------------------|---------------------|---------------------|--------------|--|---------------|--------------|-------------|------------------------------|-------------------------|-------------|--------------------------|---------------------------------|-------------------------------|---------------------------|
| ADDRESS:<br><b>2244 Walnut Grove Avenue</b>  |                   |                      |          |               |        | PROJECT CONTACT:<br><b>C. Eaker / R. Weidner</b>                  |         |                  |                     |                     |              | LAB USE ONLY<br><input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| CITY<br><b>Rosemead, CA 91770</b>  |                   | STATE                |          | ZIP           |        |   |         |                  |                     |                     |              | COOLER RECEIPT<br>TEMP = _____ °C  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| TEL: _____   |                   | FAX: _____           |          | E-MAIL: _____ |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| TURNAROUND TIME<br><input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)<br><input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL _____ / _____ / _____.  |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| SPECIAL INSTRUCTIONS Report and invoice to SCE. Refer any questions to C. Eaker (626/302-8531 eakercl@sce.com) or R. Weidner (626/302-4033 weidners@sce.com).  |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| LAB USE ONLY   | SAMPLE ID         | LOCATION/DESCRIPTION | SAMPLING |               | MATRIX | NO. OF CONT.  | TPH (G) | TPH (D) or _____ | BTEX / MTBE (8021B) | HALOCARBONS (8021B) | VOCs (8260B) | VOCs (5035 / 8260B) EnCore   | SVOCs (8270C) | PEST (8081A) | PCBs (8082) | EOB / DBCP (504.1) or (8011) | CAC, T22 METALS (6010B) | PNAS (8310) | VOCs (T0-14A) or (T0-15) | CH <sub>4</sub> / TG/NMO (25.1) | FIXED GASES (25.1) or (01946) | EPA 8280 Modified for SCE |
|  |                   |                      | DATE     | TIME          |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
|  | MW-34/B-19(00)-5  |                      | 9/12/00  | S             | 1      |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             | X                        |                                 |                               |                           |
|  | MW-34/B-19(00)-10 |                      | 9/12/00  | S             | 1      |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             | X                        |                                 |                               |                           |
|  | MW-34/B-19(00)-25 |                      | 9/12/00  | S             | 1      |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             | X                        |                                 |                               |                           |
|  | MW-34/B-19(00)-30 |                      | 9/12/00  | S             | 1      |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             | X                        |                                 |                               |                           |
|  | MW-34/B-19(00)-40 |                      | 9/12/00  | S             | 1      |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             | X                        |                                 |                               |                           |
|  |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
|  |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
|  |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
|  |                   |                      |          |               |        |   |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| Relinquished by: (Signature)<br><i>R. Eaker</i>  |                   |                      |          |               |        | Received by: (Signature)  |         |                  |                     |                     |              | Date: <u>10/25/00</u> Time: <u>1610</u>  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| Relinquished by: (Signature)   |                   |                      |          |               |        | Received by: (Signature)  |         |                  |                     |                     |              | Date: _____ Time: _____  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| SHIPPED VIA  |                   |                      |          |               |        | FEDEX, AIRBILL NO. 7911 3796 2820                                 |         |                  |                     |                     |              |  |               |              |             |                              |                         |             |                          |                                 |                               |                           |
| Relinquished by: (Signature)   |                   |                      |          |               |        | Received for Laboratory by: (Signature)<br><i>Deegan Surratt</i>  |         |                  |                     |                     |              | Date: <u>10/26/00</u> Time: <u>1355</u>  |               |              |             |                              |                         |             |                          |                                 |                               |                           |

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10/01/00 Revision

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-75(00)-30

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-001 | Work Order #....: | DNWCD1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/11/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date...: | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER                      | RESULT | REPORTING LIMIT | TEF FACTOR | TEQ Conc.   |
|--------------------------------|--------|-----------------|------------|-------------|
| 2,3,7,8-TCDD                   | ND     | 0.030           | 1.000      | 0.00        |
| Total TCDD                     | ND     | 0.030           |            |             |
| 1,2,3,7,8-PeCDD                | ND     | 0.14            | 0.500      | 0.00        |
| Total PeCDD                    | ND     | 0.14            |            |             |
| 1,2,3,4,7,8-HxCDD              | ND     | 0.051           | 0.100      | 0.00        |
| 1,2,3,6,7,8-HxCDD              | ND     | 0.042           | 0.100      | 0.00        |
| 1,2,3,7,8,9-HxCDD              | ND     | 0.044           | 0.100      | 0.00        |
| Total HxCDD                    | ND     | 0.042           |            |             |
| 1,2,3,4,6,7,8-HpCDD            | ND     | 0.23            | 0.010      | 0.00        |
| Total HpCDD                    | ND     | 0.23            |            |             |
| OCDD                           | 2.4 J  | --              | 0.001      | 0.00        |
| 2,3,7,8-TCDF                   | ND     | 0.047           | 0.100      | 0.00        |
| Total TCDF                     | ND     | 0.047           |            |             |
| 1,2,3,7,8-PeCDF                | ND     | 0.042           | 0.050      | 0.00        |
| 2,3,4,7,8-PeCDF                | ND     | 0.038           | 0.500      | 0.00        |
| Total PeCDF                    | ND     | 0.038           |            |             |
| 1,2,3,4,7,8-HxCDF              | ND     | 0.028           | 0.100      | 0.00        |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.023           | 0.100      | 0.00        |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.028           | 0.100      | 0.00        |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.028           | 0.100      | 0.00        |
| Total HxCDF                    | ND     | 0.023           |            |             |
| 1,2,3,4,6,7,8-HpCDF            | ND     | 0.073           | 0.010      | 0.00        |
| 1,2,3,4,7,8,9-HpCDF            | ND     | 0.095           | 0.010      | 0.00        |
| Total HpCDF                    | ND     | 0.073           |            |             |
| OCDF                           | ND     | 0.22            | 0.001      | 0.00        |
| <b>Total TEQ Concentration</b> |        |                 |            | <b>0.00</b> |

| INTERNAL STANDARDS      | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------|------------------|-----------------|
| 13C-2,3,7,8-TCDD        | 87               | 40 - 120        |
| 13C-2,3,7,8-TCDF        | 88               | 40 - 120        |
| 13C-1,2,3,6,7,8-HxCDD   | 100              | 40 - 120        |
| 13C-1,2,3,4,6,7,8-HpCDF | 102              | 40 - 120        |
| 13C-OCDD                | 92               | 40 - 120        |

**NOTES:**

Calculations are performed before rounding to avoid round-off errors in calculated results

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-75(00)-50

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-002 | Work Order #....: | DNWCM1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/11/00       | Date Received..:  | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT | REPORTING LIMIT | TEF FACTOR | TEQ Conc. |
|-------------------------|--------|-----------------|------------|-----------|
| 2,3,7,8-TCDD            | ND     | 0.046           | 1.000      | 0.00      |
| Total TCDD              | ND     | 0.046           |            |           |
| 1,2,3,7,8-PeCDD         | ND     | 0.12            | 0.500      | 0.00      |
| Total PeCDD             | ND     | 0.12            |            |           |
| 1,2,3,4,7,8-HxCDD       | ND     | 0.089           | 0.100      | 0.00      |
| 1,2,3,6,7,8-HxCDD       | ND     | 0.074           | 0.100      | 0.00      |
| 1,2,3,7,8,9-HxCDD       | ND     | 0.077           | 0.100      | 0.00      |
| Total HxCDD             | ND     | 0.074           |            |           |
| 1,2,3,4,6,7,8-HpCDD     | 0.91   | --              | 0.010      | 0.01      |
| Total HpCDD             | 0.91   | --              |            |           |
| OCDD                    | 9.2    | --              | 0.001      | 0.01      |
| 2,3,7,8-TCDF            | ND     | 0.069           | 0.100      | 0.00      |
| Total TCDF              | ND     | 0.069           |            |           |
| 1,2,3,7,8-PeCDF         | ND     | 0.050           | 0.050      | 0.00      |
| 2,3,4,7,8-PeCDF         | ND     | 0.045           | 0.500      | 0.00      |
| Total PeCDF             | ND     | 0.045           |            |           |
| 1,2,3,4,7,8-HxCDF       | ND     | 0.049           | 0.100      | 0.00      |
| 1,2,3,6,7,8-HxCDF       | ND     | 0.039           | 0.100      | 0.00      |
| 2,3,4,6,7,8-HxCDF       | ND     | 0.048           | 0.100      | 0.00      |
| 1,2,3,7,8,9-HxCDF       | ND     | 0.049           | 0.100      | 0.00      |
| Total HxCDF             | ND     | 0.039           |            |           |
| 1,2,3,4,6,7,8-HpCDF     | ND     | 0.19            | 0.010      | 0.00      |
| 1,2,3,4,7,8,9-HpCDF     | ND     | 0.24            | 0.010      | 0.00      |
| Total HpCDF             | ND     | 0.19            |            |           |
| OCDF                    | ND     | 0.41            | 0.001      | 0.00      |
| Total TEQ Concentration |        |                 |            | 0.02      |

| INTERNAL STANDARDS      | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------|------------------|-----------------|
| 13C-2,3,7,8-TCDD        | 86               | 40 - 120        |
| 13C-2,3,7,8-TCDF        | 84               | 40 - 120        |
| 13C-1,2,3,6,7,8-HxCDD   | 89               | 40 - 120        |
| 13C-1,2,3,4,6,7,8-HpCDF | 91               | 40 - 120        |
| 13C-OCDD                | 85               | 40 - 120        |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: S-14(00)-35

|                  |               |                   |          |             |       |
|------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #...: | G0J260325-003 | Work Order #...:  | DNWCN1AA | Matrix....: | SOLID |
| Date Sampled...: | 9/13/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:  | 11/8/00       | Analysis Date...: | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #...: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc.  |
|-------------------------|--------|--------------------|---------------|------------|
| 2,3,7,8-TCDD            | ND     | 0.039              | 1.000         | 0.00       |
| Total TCDD              | ND     | 0.039              |               |            |
| 1,2,3,7,8-PeCDD         | ND     | 0.076              | 0.500         | 0.00       |
| Total PeCDD             | ND     | 0.076              |               |            |
| 1,2,3,4,7,8-HxCDD       | ND     | 0.38               | 0.100         | 0.00       |
| 1,2,3,6,7,8-HxCDD       | 0.67   | J                  | --            | 0.100 0.07 |
| 1,2,3,7,8,9-HxCDD       | ND     | 0.33               | 0.100         | 0.00       |
| Total HxCDD             | 2.8    | --                 |               |            |
| 1,2,3,4,6,7,8-HpCDD     | 130    | E                  | --            | 0.010 1.28 |
| Total HpCDD             | 230    |                    | --            |            |
| OCDD                    | 950    | E                  | --            | 0.001 0.95 |
| 2,3,7,8-TCDF            | ND     | 0.067              | 0.100         | 0.00       |
| Total TCDF              | ND     | 0.067              |               |            |
| 1,2,3,7,8-PeCDF         | ND     | 0.14               | 0.050         | 0.00       |
| 2,3,4,7,8-PeCDF         | ND     | 0.13               | 0.500         | 0.00       |
| Total PeCDF             | ND     | 0.13               |               |            |
| 1,2,3,4,7,8-HxCDF       | 0.24   | J                  | --            | 0.100 0.02 |
| 1,2,3,6,7,8-HxCDF       | ND     | 0.18               | 0.100         | 0.00       |
| 2,3,4,6,7,8-HxCDF       | ND     | 0.22               | 0.100         | 0.00       |
| 1,2,3,7,8,9-HxCDF       | ND     | 0.22               | 0.100         | 0.00       |
| Total HxCDF             | 3.4    | --                 |               |            |
| 1,2,3,4,6,7,8-HpCDF     | 4.3    | --                 | 0.010         | 0.04       |
| 1,2,3,4,7,8,9-HpCDF     | ND     | 0.26               | 0.010         | 0.00       |
| Total HpCDF             | 26     | --                 |               |            |
| OCDF                    | 16     | --                 | 0.001         | 0.02       |
| Total TEQ Concentration |        |                    |               | 2.38       |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 81                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 79                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 79                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 83                  | 40 - 120           |
| 13C-OCDD                | 172 *               | 40 - 120           |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

\* Surrogate recovery is outside stated control limits.

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: S-14(00)-45

|                 |               |                  |          |             |       |
|-----------------|---------------|------------------|----------|-------------|-------|
| Lot-Sample #... | G0J260325-004 | Work Order #...  | DNWCQ1AA | Matrix....: | SOLID |
| Date Sampled... | 9/13/00       | Date Received..: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....: | 11/8/00       | Analysis Date..: | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #... | 0315510       | Dilution Factor: | 1        |             |       |

| PARAMETER               | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc. |
|-------------------------|--------|--------------------|---------------|-----------|
| 2,3,7,8-TCDD            | ND     | 0.064              | 1.000         | 0.00      |
| Total TCDD              | ND     | 0.064              |               |           |
| 1,2,3,7,8-PeCDD         | ND     | 0.18               | 0.500         | 0.00      |
| Total PeCDD             | ND     | 1.4                |               |           |
| 1,2,3,4,7,8-HxCDD       | 1.3    | --                 | 0.100         | 0.13      |
| 1,2,3,6,7,8-HxCDD       | 7.4    | --                 | 0.100         | 0.74      |
| 1,2,3,7,8,9-HxCDD       | 2.0    | --                 | 0.100         | 0.20      |
| Total HxCDD             | 48     | --                 |               |           |
| 1,2,3,4,6,7,8-HpCDD     | 830    | E                  | 0.010         | 8.28      |
| Total HpCDD             | 1200   |                    |               |           |
| OCDD                    | 3300   | E                  | 0.001         | 3.34      |
| 2,3,7,8-TCDF            | ND     | 0.27               | 0.100         | 0.00      |
| Total TCDF              | ND     | 0.27               |               |           |
| 1,2,3,7,8-PeCDF         | ND     | 0.24               | 0.050         | 0.00      |
| 2,3,4,7,8-PeCDF         | ND     | 0.22               | 0.500         | 0.00      |
| Total PeCDF             | ND     | 0.22               |               |           |
| 1,2,3,4,7,8-HxCDF       | 0.66   | J                  | 0.100         | 0.06      |
| 1,2,3,6,7,8-HxCDF       | ND     | 0.26               | 0.100         | 0.00      |
| 2,3,4,6,7,8-HxCDF       | ND     | 0.32               | 0.100         | 0.00      |
| 1,2,3,7,8,9-HxCDF       | ND     | 0.32               | 0.100         | 0.00      |
| Total HxCDF             | 15     | --                 |               |           |
| 1,2,3,4,6,7,8-HpCDF     | 17     | --                 | 0.010         | 0.17      |
| 1,2,3,4,7,8,9-HpCDF     | ND     | 1.1                | 0.010         | 0.00      |
| Total HpCDF             | 130    | --                 |               |           |
| OCDF                    | 120    | E                  | 0.001         | 0.12      |
| Total TEQ Concentration |        |                    |               | 13.05     |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 83                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 83                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 92                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 76                  | 40 - 120           |
| 13C-OCDD                | 87                  | 40 - 120           |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: S-14(00)-50

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-005 | Work Order #....: | DNWCT1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/13/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc. |       |
|-------------------------|--------|--------------------|---------------|-----------|-------|
| 2,3,7,8-TCDD            | ND     | 0.12               | 1.000         | 0.00      |       |
| Total TCDD              | ND     | 0.12               |               |           |       |
| 1,2,3,7,8-PeCDD         | ND     | 0.39               | 0.500         | 0.00      |       |
| Total PeCDD             | 3.9    | --                 |               |           |       |
| 1,2,3,4,7,8-HxCDD       | 3.2    | --                 | 0.100         | 0.32      |       |
| 1,2,3,6,7,8-HxCDD       | 20     | --                 | 0.100         | 1.95      |       |
| 1,2,3,7,8,9-HxCDD       | 5.6    | --                 | 0.100         | 0.56      |       |
| Total HxCDD             | 140    | --                 |               |           |       |
| 1,2,3,4,6,7,8-HpCDD     | 1800   | E                  | --            | 0.010     | 18.00 |
| Total HpCDD             | 2700   |                    | --            |           |       |
| OCDD                    | 5400   | E                  | --            | 0.001     | 5.36  |
| 2,3,7,8-TCDF            | ND     | 0.13               | 0.100         | 0.00      |       |
| Total TCDF              | ND     | 0.13               |               |           |       |
| 1,2,3,7,8-PeCDF         | ND     | 0.25               | 0.050         | 0.00      |       |
| 2,3,4,7,8-PeCDF         | ND     | 0.22               | 0.500         | 0.00      |       |
| Total PeCDF             | ND     | 0.40               |               |           |       |
| 1,2,3,4,7,8-HxCDF       | 1.6    | J                  | --            | 0.100     | 0.16  |
| 1,2,3,6,7,8-HxCDF       | ND     |                    | 0.38          | 0.100     | 0.00  |
| 2,3,4,6,7,8-HxCDF       | 0.33   | J                  | --            | 0.100     | 0.03  |
| 1,2,3,7,8,9-HxCDF       | ND     |                    | 0.47          | 0.100     | 0.00  |
| Total HxCDF             | 38     |                    | --            |           |       |
| 1,2,3,4,6,7,8-HpCDF     | 39     | E                  | --            | 0.010     | 0.39  |
| 1,2,3,4,7,8,9-HpCDF     | 2.2    | J                  | --            | 0.010     | 0.02  |
| Total HpCDF             | 270    |                    | --            |           |       |
| OCDF                    | 270    | E                  | --            | 0.001     | 0.27  |
| Total TEQ Concentration |        |                    |               |           | 27.06 |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 85                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 86                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 100                 | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 87                  | 40 - 120           |
| 13C-OCDD                | 84                  | 40 - 120           |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-82/EW-1(00)-5

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | GOJ260325-006 | Work Order #....: | DNWCW1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received..:  | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER                      | RESULT | REPORTING LIMIT | TEF FACTOR | TEQ Conc.   |
|--------------------------------|--------|-----------------|------------|-------------|
| 2,3,7,8-TCDD                   | ND     | 0.063           | 1.000      | 0.00        |
| Total TCDD                     | ND     | 0.063           |            |             |
| 1,2,3,7,8-PeCDD                | ND     | 0.53            | 0.500      | 0.00        |
| Total PeCDD                    | ND     | 0.53            |            |             |
| 1,2,3,4,7,8-HxCDD              | ND     | 0.17            | 0.100      | 0.00        |
| 1,2,3,6,7,8-HxCDD              | ND     | 0.14            | 0.100      | 0.00        |
| 1,2,3,7,8,9-HxCDD              | ND     | 0.14            | 0.100      | 0.00        |
| Total HxCDD                    | ND     | 0.14            |            |             |
| 1,2,3,4,6,7,8-HpCDD            | ND     | 0.98            | 0.010      | 0.00        |
| Total HpCDD                    | ND     | 0.98            |            |             |
| OCDD                           | 4.8    | --              | 0.001      | 0.00        |
| 2,3,7,8-TCDF                   | ND     | 0.075           | 0.100      | 0.00        |
| Total TCDF                     | ND     | 0.075           |            |             |
| 1,2,3,7,8-PeCDF                | ND     | 0.059           | 0.050      | 0.00        |
| 2,3,4,7,8-PeCDF                | ND     | 0.053           | 0.500      | 0.00        |
| Total PeCDF                    | ND     | 0.053           |            |             |
| 1,2,3,4,7,8-HxCDF              | ND     | 0.068           | 0.100      | 0.00        |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.054           | 0.100      | 0.00        |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.067           | 0.100      | 0.00        |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.067           | 0.100      | 0.00        |
| Total HxCDF                    | ND     | 0.054           |            |             |
| 1,2,3,4,6,7,8-HpCDF            | ND     | 0.20            | 0.010      | 0.00        |
| 1,2,3,4,7,8,9-HpCDF            | ND     | 0.26            | 0.010      | 0.00        |
| Total HpCDF                    | ND     | 0.20            |            |             |
| OCDF                           | ND     | 0.078           | 0.001      | 0.00        |
| <b>Total TEQ Concentration</b> |        |                 |            | <b>0.00</b> |

| INTERNAL STANDARDS                  | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------------------|------------------|-----------------|
| <sup>13</sup> C-2,3,7,8-TCDD        | 75               | 40 - 120        |
| <sup>13</sup> C-2,3,7,8-TCDF        | 79               | 40 - 120        |
| <sup>13</sup> C-1,2,3,6,7,8-HxCDD   | 97               | 40 - 120        |
| <sup>13</sup> C-1,2,3,4,6,7,8-HpCDF | 98               | 40 - 120        |
| <sup>13</sup> C-OCDD                | 88               | 40 - 120        |

**NOTES:**

Calculations are performed before rounding to avoid round-off errors in calculated results

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-82/EW-1(00)-10

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-007 | Work Order #....: | DNWC31AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date...: | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER                      | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc.   |
|--------------------------------|--------|--------------------|---------------|-------------|
| 2,3,7,8-TCDD                   | ND     | 0.026              | 1.000         | 0.00        |
| Total TCDD                     | ND     | 0.026              |               |             |
| 1,2,3,7,8-PeCDD                | ND     | 0.093              | 0.500         | 0.00        |
| Total PeCDD                    | ND     | 0.093              |               |             |
| 1,2,3,4,7,8-HxCDD              | ND     | 0.20               | 0.100         | 0.00        |
| 1,2,3,6,7,8-HxCDD              | 0.74 J | --                 | 0.100         | 0.07        |
| 1,2,3,7,8,9-HxCDD              | ND     | 0.18               | 0.100         | 0.00        |
| Total HxCDD                    | 2.4    | --                 |               |             |
| 1,2,3,4,6,7,8-HpCDD            | 62 E   | --                 | 0.010         | 0.62        |
| Total HpCDD                    | 120    | --                 |               |             |
| OCDD                           | 900    | E                  | 0.001         | 0.90        |
| 2,3,7,8-TCDF                   | ND     | 0.053              | 0.100         | 0.00        |
| Total TCDF                     | ND     | 0.053              |               |             |
| 1,2,3,7,8-PeCDF                | ND     | 0.088              | 0.050         | 0.00        |
| 2,3,4,7,8-PeCDF                | ND     | 0.080              | 0.500         | 0.00        |
| Total PeCDF                    | ND     | 0.080              |               |             |
| 1,2,3,4,7,8-HxCDF              | ND     | 0.30               | 0.100         | 0.00        |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.24               | 0.100         | 0.00        |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.30               | 0.100         | 0.00        |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.30               | 0.100         | 0.00        |
| Total HxCDF                    | 3.6    | --                 |               |             |
| 1,2,3,4,6,7,8-HpCDF            | 4.3    | --                 | 0.010         | 0.04        |
| 1,2,3,4,7,8,9-HpCDF            | ND     | 0.39               | 0.010         | 0.00        |
| Total HpCDF                    | 31     | --                 |               |             |
| OCDF                           | 33     | --                 | 0.001         | 0.03        |
| <b>Total TEQ Concentration</b> |        |                    |               | <b>1.67</b> |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 82                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 78                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 84                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 94                  | 40 - 120           |
| 13C-OCDD                | 106                 | 40 - 120           |

**NOTES:**

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-82/EW-1(00)-25

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-008 | Work Order #....: | DNWC51AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date...: | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc. |      |
|-------------------------|--------|--------------------|---------------|-----------|------|
| 2,3,7,8-TCDD            | ND     | 0.044              | 1.000         | 0.00      |      |
| Total TCDD              | ND     | 0.044              |               |           |      |
| 1,2,3,7,8-PeCDD         | ND     | 0.16               | 0.500         | 0.00      |      |
| Total PeCDD             | ND     | 0.16               |               |           |      |
| 1,2,3,4,7,8-HxCDD       | ND     | 0.41               | 0.100         | 0.00      |      |
| 1,2,3,6,7,8-HxCDD       | 4.0    | --                 | 0.100         | 0.40      |      |
| 1,2,3,7,8,9-HxCDD       | ND     | 0.36               | 0.100         | 0.00      |      |
| Total HxCDD             | 11     | --                 |               |           |      |
| 1,2,3,4,6,7,8-HpCDD     | 230    | E                  | --            | 0.010     | 2.26 |
| Total HpCDD             | 370    |                    | --            |           |      |
| OCDD                    | 1600   | E                  | --            | 0.001     | 1.62 |
| 2,3,7,8-TCDF            | ND     | 0.12               | 0.100         | 0.00      |      |
| Total TCDF              | ND     | 0.12               |               |           |      |
| 1,2,3,7,8-PeCDF         | ND     | 0.13               | 0.050         | 0.00      |      |
| 2,3,4,7,8-PeCDF         | ND     | 0.12               | 0.500         | 0.00      |      |
| Total PeCDF             | ND     | 0.12               |               |           |      |
| 1,2,3,4,7,8-HxCDF       | ND     | 0.35               | 0.100         | 0.00      |      |
| 1,2,3,6,7,8-HxCDF       | ND     | 0.25               | 0.100         | 0.00      |      |
| 2,3,4,6,7,8-HxCDF       | ND     | 0.31               | 0.100         | 0.00      |      |
| 1,2,3,7,8,9-HxCDF       | ND     | 0.31               | 0.100         | 0.00      |      |
| Total HxCDF             | 16     | --                 |               |           |      |
| 1,2,3,4,6,7,8-HpCDF     | 21     |                    | --            | 0.010     | 0.21 |
| 1,2,3,4,7,8,9-HpCDF     | 1.2    | J                  | --            | 0.010     | 0.01 |
| Total HpCDF             | 160    |                    | --            |           |      |
| OCDF                    | 110    | E                  | --            | 0.001     | 0.11 |
| Total TEQ Concentration |        |                    |               |           | 4.61 |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 83                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 86                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 84                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 82                  | 40 - 120           |
| 13C-OCDD                | 156 *               | 40 - 120           |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

\* Surrogate recovery is outside stated control limits.

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-82/EW-1(00)-30

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-009 | Work Order #....: | DNWC81AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received..:  | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc. |
|-------------------------|--------|--------------------|---------------|-----------|
| 2,3,7,8-TCDD            | ND     | 0.11               | 1.000         | 0.00      |
| Total TCDD              | ND     | 0.11               |               |           |
| 1,2,3,7,8-PeCDD         | ND     | 0.39               | 0.500         | 0.00      |
| Total PeCDD             | ND     | 0.39               |               |           |
| 1,2,3,4,7,8-HxCDD       | ND     | 0.97               | 0.100         | 0.00      |
| 1,2,3,6,7,8-HxCDD       | 7.1    | --                 | 0.100         | 0.71      |
| 1,2,3,7,8,9-HxCDD       | ND     | 0.85               | 0.100         | 0.00      |
| Total HxCDD             | 19     | --                 |               |           |
| 1,2,3,4,6,7,8-HpCDD     | 360    | E                  | --            | 3.60      |
| Total HpCDD             | 600    |                    | --            |           |
| OCDD                    | ND     |                    | 0.001         | 0.00      |
| 2,3,7,8-TCDF            | ND     | 0.13               | 0.100         | 0.00      |
| Total TCDF              | ND     | 0.13               |               |           |
| 1,2,3,7,8-PeCDF         | ND     | 0.30               | 0.050         | 0.00      |
| 2,3,4,7,8-PeCDF         | ND     | 0.27               | 0.500         | 0.00      |
| Total PeCDF             | ND     | 0.27               |               |           |
| 1,2,3,4,7,8-HxCDF       | ND     | 0.78               | 0.100         | 0.00      |
| 1,2,3,6,7,8-HxCDF       | ND     | 0.62               | 0.100         | 0.00      |
| 2,3,4,6,7,8-HxCDF       | ND     | 0.76               | 0.100         | 0.00      |
| 1,2,3,7,8,9-HxCDF       | ND     | 0.77               | 0.100         | 0.00      |
| Total HxCDF             | 32     | --                 |               |           |
| 1,2,3,4,6,7,8-HpCDF     | 39     | E                  | --            | 0.39      |
| 1,2,3,4,7,8,9-HpCDF     | 2.1    |                    | --            | 0.02      |
| Total HpCDF             | 270    |                    | --            |           |
| OCDF                    | 310    | E                  | --            | 0.31      |
| Total TEQ Concentration |        |                    |               | 5.03      |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 87                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 89                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 98                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 93                  | 40 - 120           |
| 13C-OCDD                | 90                  | 40 - 120           |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: B-82/EW-1(00)-40

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-010 | Work Order #....: | DNWDA1AA | Matrix....: | SOLID |
| Date Sampled...:  | 9/12/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date...: | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT |   | REPORTING LIMIT | TEF FACTOR | TEQ Conc. |
|-------------------------|--------|---|-----------------|------------|-----------|
| 2,3,7,8-TCDD            | ND     |   | 0.058           | 1.000      | 0.00      |
| Total TCDD              | ND     |   | 0.058           |            |           |
| 1,2,3,7,8-PeCDD         | ND     |   | 0.60            | 0.500      | 0.00      |
| Total PeCDD             | ND     |   | 0.60            |            |           |
| 1,2,3,4,7,8-HxCDD       | ND     |   | 1.3             | 0.100      | 0.00      |
| 1,2,3,6,7,8-HxCDD       | 10     |   | --              | 0.100      | 1.00      |
| 1,2,3,7,8,9-HxCDD       | ND     |   | 1.2             | 0.100      | 0.00      |
| Total HxCDD             | 28     |   | --              |            |           |
| 1,2,3,4,6,7,8-HpCDD     | 540    | E | --              | 0.010      | 5.43      |
| Total HpCDD             | 930    |   | --              |            |           |
| OCDD                    | 4900   | E | --              | 0.001      | 4.87      |
| 2,3,7,8-TCDF            | ND     |   | 0.089           | 0.100      | 0.00      |
| Total TCDF              | ND     |   | 0.089           |            |           |
| 1,2,3,7,8-PeCDF         | ND     |   | 0.26            | 0.050      | 0.00      |
| 2,3,4,7,8-PeCDF         | ND     |   | 0.23            | 0.500      | 0.00      |
| Total PeCDF             | ND     |   | 0.23            |            |           |
| 1,2,3,4,7,8-HxCDF       | 0.85   | J | --              | 0.100      | 0.08      |
| 1,2,3,6,7,8-HxCDF       | ND     |   | 0.39            | 0.100      | 0.00      |
| 2,3,4,6,7,8-HxCDF       | ND     |   | 0.48            | 0.100      | 0.00      |
| 1,2,3,7,8,9-HxCDF       | ND     |   | 0.48            | 0.100      | 0.00      |
| Total HxCDF             | 38     |   | --              |            |           |
| 1,2,3,4,6,7,8-HpCDF     | 49     | E | --              | 0.010      | 0.49      |
| 1,2,3,4,7,8,9-HpCDF     | 3.1    |   | --              | 0.010      | 0.03      |
| Total HpCDF             | 370    |   | --              |            |           |
| OCDF                    | 330    | E | --              | 0.001      | 0.32      |
| Total TEQ Concentration |        |   |                 |            | 12.23     |

| INTERNAL STANDARDS      | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------|------------------|-----------------|
| 13C-2,3,7,8-TCDD        | 86               | 40 - 120        |
| 13C-2,3,7,8-TCDF        | 87               | 40 - 120        |
| 13C-1,2,3,6,7,8-HxCDD   | 98               | 40 - 120        |
| 13C-1,2,3,4,6,7,8-HpCDF | 91               | 40 - 120        |
| 13C-OCDD                | 109              | 40 - 120        |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: MW-34/B-19(00)-5

|                  |               |                  |          |             |       |
|------------------|---------------|------------------|----------|-------------|-------|
| Lot-Sample #...: | G0J260325-011 | Work Order #...: | DNWDD1AA | Matrix....: | SOLID |
| Date Sampled...: | 9/12/00       | Date Received..: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:  | 11/8/00       | Analysis Date..: | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #...: | 0315510       | Dilution Factor: | 1        |             |       |

| PARAMETER                      | RESULT | REPORTING LIMIT | TEF FACTOR | TEQ Conc.   |      |
|--------------------------------|--------|-----------------|------------|-------------|------|
| 2,3,7,8-TCDD                   | ND     | 0.021           | 1.000      | 0.00        |      |
| Total TCDD                     | ND     | 0.021           |            |             |      |
| 1,2,3,7,8-PeCDD                | ND     | 0.073           | 0.500      | 0.00        |      |
| Total PeCDD                    | ND     | 0.073           |            |             |      |
| 1,2,3,4,7,8-HxCDD              | ND     | 0.056           | 0.100      | 0.00        |      |
| 1,2,3,6,7,8-HxCDD              | ND     | 0.046           | 0.100      | 0.00        |      |
| 1,2,3,7,8,9-HxCDD              | ND     | 0.048           | 0.100      | 0.00        |      |
| Total HxCDD                    | ND     | 0.046           |            |             |      |
| 1,2,3,4,6,7,8-HpCDD            | ND     | 0.32            | 0.010      | 0.00        |      |
| Total HpCDD                    | ND     | 0.53            |            |             |      |
| OCDD                           | 1.9    | J               | --         | 0.001       | 0.00 |
| 2,3,7,8-TCDF                   | ND     | 0.057           | 0.100      | 0.00        |      |
| Total TCDF                     | ND     | 0.057           |            |             |      |
| 1,2,3,7,8-PeCDF                | ND     | 0.032           | 0.050      | 0.00        |      |
| 2,3,4,7,8-PeCDF                | ND     | 0.029           | 0.500      | 0.00        |      |
| Total PeCDF                    | ND     | 0.029           |            |             |      |
| 1,2,3,4,7,8-HxCDF              | ND     | 0.11            | 0.100      | 0.00        |      |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.091           | 0.100      | 0.00        |      |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.11            | 0.100      | 0.00        |      |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.11            | 0.100      | 0.00        |      |
| Total HxCDF                    | ND     | 0.091           |            |             |      |
| 1,2,3,4,6,7,8-HpCDF            | ND     | 0.087           | 0.010      | 0.00        |      |
| 1,2,3,4,7,8,9-HpCDF            | ND     | 0.11            | 0.010      | 0.00        |      |
| Total HpCDF                    | ND     | 0.087           |            |             |      |
| OCDF                           | ND     | 0.093           | 0.001      | 0.00        |      |
| <b>Total TEQ Concentration</b> |        |                 |            | <b>0.00</b> |      |

| INTERNAL STANDARDS      | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------|------------------|-----------------|
| I3C-2,3,7,8-TCDD        | 83               | 40 - 120        |
| I3C-2,3,7,8-TCDF        | 82               | 40 - 120        |
| I3C-1,2,3,6,7,8-HxCDD   | 104              | 40 - 120        |
| I3C-1,2,3,4,6,7,8-HpCDF | 98               | 40 - 120        |
| I3C-OCDD                | 101              | 40 - 120        |

**NOTES:**

Calculations are performed before rounding to avoid round-off errors in calculated results

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: MW-34/B-19(00)-10

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-012 | Work Order #....: | DNWDP1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT |   | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc. |
|-------------------------|--------|---|--------------------|---------------|-----------|
| 2,3,7,8-TCDD            | ND     |   | 0.038              | 1.000         | 0.00      |
| Total TCDD              | ND     |   | 0.038              |               |           |
| 1,2,3,7,8-PeCDD         | ND     |   | 0.098              | 0.500         | 0.00      |
| Total PeCDD             | ND     |   | 0.098              |               |           |
| 1,2,3,4,7,8-HxCDD       | ND     |   | 0.79               | 0.100         | 0.00      |
| 1,2,3,6,7,8-HxCDD       | ND     |   | 0.66               | 0.100         | 0.00      |
| 1,2,3,7,8,9-HxCDD       | ND     |   | 0.69               | 0.100         | 0.00      |
| Total HxCDD             | ND     |   | 0.66               |               |           |
| 1,2,3,4,6,7,8-HpCDD     | 26     | E | --                 | 0.010         | 0.26      |
| Total HpCDD             | 49     |   | --                 |               |           |
| OCDD                    | 280    | E | --                 | 0.001         | 0.28      |
| 2,3,7,8-TCDF            | ND     |   | 0.064              | 0.100         | 0.00      |
| Total TCDF              | ND     |   | 0.064              |               |           |
| 1,2,3,7,8-PeCDF         | ND     |   | 0.046              | 0.050         | 0.00      |
| 2,3,4,7,8-PeCDF         | ND     |   | 0.042              | 0.500         | 0.00      |
| Total PeCDF             | ND     |   | 0.042              |               |           |
| 1,2,3,4,7,8-HxCDF       | ND     |   | 0.11               | 0.100         | 0.00      |
| 1,2,3,6,7,8-HxCDF       | ND     |   | 0.090              | 0.100         | 0.00      |
| 2,3,4,6,7,8-HxCDF       | ND     |   | 0.11               | 0.100         | 0.00      |
| 1,2,3,7,8,9-HxCDF       | ND     |   | 0.11               | 0.100         | 0.00      |
| Total HxCDF             | 0.30   |   | --                 |               |           |
| 1,2,3,4,6,7,8-HpCDF     | 0.66   | J | --                 | 0.010         | 0.01      |
| 1,2,3,4,7,8,9-HpCDF     | ND     |   | 0.090              | 0.010         | 0.00      |
| Total HpCDF             | 4.4    |   | --                 |               |           |
| OCDF                    | 3.9    |   | --                 | 0.001         | 0.00      |
| Total TEQ Concentration |        |   |                    |               | 0.55      |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 82                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 82                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 68                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 68                  | 40 - 120           |
| 13C-OCDD                | 116                 | 40 - 120           |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: MW-34/B-19(00)-25

|                   |               |                   |          |              |       |
|-------------------|---------------|-------------------|----------|--------------|-------|
| Lot-Sample #....: | G0J260325-013 | Work Order #....: | DNWDQ1AA | Matrix.....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received...: | 10/26/00 | Instrument:  | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date...: | 11/13/00 | Units.....:  | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |              |       |

| PARAMETER                      | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc.    |
|--------------------------------|--------|--------------------|---------------|--------------|
| 2,3,7,8-TCDD                   | ND     | 0.055              | 1.000         | 0.00         |
| Total TCDD                     | ND     | 0.055              |               |              |
| 1,2,3,7,8-PeCDD                | ND     | 0.11               | 0.500         | 0.00         |
| Total PeCDD                    | ND     | 0.52               |               |              |
| 1,2,3,4,7,8-HxCDD              | 0.58   | J                  | --            | 0.06         |
| 1,2,3,6,7,8-HxCDD              | 5.1    |                    | --            | 0.51         |
| 1,2,3,7,8,9-HxCDD              | 0.92   | J                  | --            | 0.09         |
| Total HxCDD                    | 30     |                    | --            |              |
| 1,2,3,4,6,7,8-HpCDD            | 550    | E                  | --            | 5.54         |
| Total HpCDD                    | 940    |                    | --            |              |
| OCDD                           | 4100   | E                  | --            | 4.13         |
| 2,3,7,8-TCDF                   | ND     | 0.067              | 0.100         | 0.00         |
| Total TCDF                     | ND     | 0.067              |               |              |
| 1,2,3,7,8-PeCDF                | ND     | 0.091              | 0.050         | 0.00         |
| 2,3,4,7,8-PeCDF                | ND     | 0.082              | 0.500         | 0.00         |
| Total PeCDF                    | ND     | 0.082              |               |              |
| 1,2,3,4,7,8-HxCDF              | 0.61   | J                  | --            | 0.06         |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.18               | 0.100         | 0.00         |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.22               | 0.100         | 0.00         |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.22               | 0.100         | 0.00         |
| Total HxCDF                    | 18     |                    | --            |              |
| 1,2,3,4,6,7,8-HpCDF            | 22     |                    | --            | 0.22         |
| 1,2,3,4,7,8,9-HpCDF            | 1.5    |                    | --            | 0.010        |
| Total HpCDF                    | 170    |                    | --            |              |
| OCDF                           | 390    | E                  | --            | 0.001        |
| <b>Total TEQ Concentration</b> |        |                    |               | <b>11.02</b> |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 87                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 88                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 98                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 80                  | 40 - 120           |
| 13C-OCDD                | 31 *                | 40 - 120           |

**NOTES:**

Calculations are performed before rounding to avoid round-off errors in calculated results

\* Surrogate recovery is outside stated control limits.

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: MW-34/B-19(00)-30

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-014 | Work Order #....: | DNWDR1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER               | RESULT |   | REPORTING LIMIT | TEF FACTOR | TEQ Conc. |
|-------------------------|--------|---|-----------------|------------|-----------|
| 2,3,7,8-TCDD            | ND     |   | 0.051           | 1.000      | 0.00      |
| Total TCDD              | ND     |   | 0.051           |            |           |
| 1,2,3,7,8-PeCDD         | ND     |   | 0.078           | 0.500      | 0.00      |
| Total PeCDD             | ND     |   | 0.66            |            |           |
| 1,2,3,4,7,8-HxCDD       | 0.84   | J | --              | 0.100      | 0.08      |
| 1,2,3,6,7,8-HxCDD       | 6.1    |   | --              | 0.100      | 0.61      |
| 1,2,3,7,8,9-HxCDD       | 1.4    |   | --              | 0.100      | 0.14      |
| Total HxCDD             | 44     |   | --              |            |           |
| 1,2,3,4,6,7,8-HpCDD     | 830    | E | --              | 0.010      | 8.28      |
| Total HpCDD             | 1500   |   | --              |            |           |
| OCDD                    | 3700   | E | --              | 0.001      | 3.69      |
| 2,3,7,8-TCDF            | ND     |   | 0.059           | 0.100      | 0.00      |
| Total TCDF              | ND     |   | 0.059           |            |           |
| 1,2,3,7,8-PeCDF         | ND     |   | 0.18            | 0.050      | 0.00      |
| 1,2,3,4,7,8-PeCDF       | ND     |   | 0.17            | 0.500      | 0.00      |
| Total PeCDF             | ND     |   | 0.17            |            |           |
| 1,2,3,4,7,8-HxCDF       | 0.57   | J | --              | 0.100      | 0.06      |
| 1,2,3,6,7,8-HxCDF       | ND     |   | 0.24            | 0.100      | 0.00      |
| 2,3,4,6,7,8-HxCDF       | ND     |   | 0.29            | 0.100      | 0.00      |
| 1,2,3,7,8,9-HxCDF       | ND     |   | 0.29            | 0.100      | 0.00      |
| Total HxCDF             | 16     |   | --              |            |           |
| 1,2,3,4,6,7,8-HpCDF     | 23     |   | --              | 0.010      | 0.23      |
| 1,2,3,4,7,8,9-HpCDF     | 1.4    |   | --              | 0.010      | 0.01      |
| Total HpCDF             | 170    |   | --              |            |           |
| OCDF                    | 160    | E | --              | 0.001      | 0.16      |
| Total TEQ Concentration |        |   |                 |            | 13.26     |

| INTERNAL STANDARDS      | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------|------------------|-----------------|
| 13C-2,3,7,8-TCDD        | 86               | 40 - 120        |
| 13C-2,3,7,8-TCDF        | 90               | 40 - 120        |
| 13C-1,2,3,6,7,8-HxCDD   | 87               | 40 - 120        |
| 13C-1,2,3,4,6,7,8-HpCDF | 81               | 40 - 120        |
| 13C-OCDD                | 100              | 40 - 120        |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

Client Sample ID: MW-34/B-19(00)-40

|                   |               |                   |          |             |       |
|-------------------|---------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | G0J260325-015 | Work Order #....: | DNWDV1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/12/00       | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00       | Analysis Date..:  | 11/13/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510       | Dilution Factor:  | 1        |             |       |

| PARAMETER                      | RESULT | REPORTING<br>LIMIT | TEF<br>FACTOR | TEQ Conc.    |
|--------------------------------|--------|--------------------|---------------|--------------|
| 2,3,7,8-TCDD                   | ND     | 0.15               | 1.000         | 0.00         |
| Total TCDD                     | ND     | 0.15               |               |              |
| 1,2,3,7,8-PeCDD                | ND     | 0.59               | 0.500         | 0.00         |
| Total PeCDD                    | ND     | 9.0                |               |              |
| 1,2,3,4,7,8-HxCDD              | 3.8    | --                 | 0.100         | 0.38         |
| 1,2,3,6,7,8-HxCDD              | 16     | --                 | 0.100         | 1.62         |
| 1,2,3,7,8,9-HxCDD              | 5.9    | --                 | 0.100         | 0.59         |
| Total HxCDD                    | 180    | --                 |               |              |
| 1,2,3,4,6,7,8-HpCDD            | 1700   | E                  | 0.010         | 17.32        |
| Total HpCDD                    | 2800   |                    | --            |              |
| OCDD                           | 3200   | E                  | 0.001         | 3.24         |
| 2,3,7,8-TCDF                   | ND     | 0.073              | 0.100         | 0.00         |
| Total TCDF                     | ND     | 0.073              |               |              |
| 1,2,3,7,8-PeCDF                | ND     | 0.35               | 0.050         | 0.00         |
| 2,3,4,7,8-PeCDF                | ND     | 0.32               | 0.500         | 0.00         |
| Total PeCDF                    | ND     | 0.32               |               |              |
| 1,2,3,4,7,8-HxCDF              | 0.70   | J                  | 0.100         | 0.07         |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.50               | 0.100         | 0.00         |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.61               | 0.100         | 0.00         |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.62               | 0.100         | 0.00         |
| Total HxCDF                    | 20     |                    | --            |              |
| 1,2,3,4,6,7,8-HpCDF            | 25     |                    | 0.010         | 0.25         |
| 1,2,3,4,7,8,9-HpCDF            | 1.3    |                    | 0.010         | 0.01         |
| Total HpCDF                    | 170    |                    | --            |              |
| OCDF                           | 110    | E                  | 0.001         | 0.10         |
| <b>Total TEQ Concentration</b> |        |                    |               | <b>23.59</b> |

| INTERNAL STANDARDS      | PERCENT<br>RECOVERY | RECOVERY<br>LIMITS |
|-------------------------|---------------------|--------------------|
| 13C-2,3,7,8-TCDD        | 83                  | 40 - 120           |
| 13C-2,3,7,8-TCDF        | 85                  | 40 - 120           |
| 13C-1,2,3,6,7,8-HxCDD   | 93                  | 40 - 120           |
| 13C-1,2,3,4,6,7,8-HpCDF | 88                  | 40 - 120           |
| 13C-OCDD                | 188 *               | 40 - 120           |

**NOTES:**

Calculations are performed before rounding to avoid round-off errors in calculated results

\* Surrogate recovery is outside stated control limits.

E Estimated result. Result concentration exceeds the calibration range.

J Estimated result. Result is less than the reporting limit.

## CONSERVATION FINANCING CORP.

Dioxins/Furans, HRGC/LRMS (8280)

## Method Blank

|                   |                 |                   |          |             |       |
|-------------------|-----------------|-------------------|----------|-------------|-------|
| Lot-Sample #....: | GOK100000-510MB | Work Order #....: | DPPMW1AA | Matrix....: | SOLID |
| Date Sampled....: | 9/11/00         | Date Received...: | 10/26/00 | Instrument: | 2DB   |
| Prep Date.....:   | 11/8/00         | Analysis Date..:  | 11/12/00 | Units.....: | ng/g  |
| Prep Batch #....: | 0315510         | Dilution Factor:  | 1        |             |       |

| PARAMETER                      | RESULT | REPORTING LIMIT | TEF FACTOR | TEQ Conc.   |
|--------------------------------|--------|-----------------|------------|-------------|
| 2,3,7,8-TCDD                   | ND     | 0.024           | 1.000      | 0.00        |
| Total TCDD                     | ND     | 0.024           |            |             |
| 1,2,3,7,8-PeCDD                | ND     | 0.087           | 0.500      | 0.00        |
| Total PeCDD                    | ND     | 0.087           |            |             |
| 1,2,3,4,7,8-HxCDD              | ND     | 0.054           | 0.100      | 0.00        |
| 1,2,3,6,7,8-HxCDD              | ND     | 0.045           | 0.100      | 0.00        |
| 1,2,3,7,8,9-HxCDD              | ND     | 0.047           | 0.100      | 0.00        |
| Total HxCDD                    | ND     | 0.045           |            |             |
| 1,2,3,4,6,7,8-HpCDD            | ND     | 0.080           | 0.010      | 0.00        |
| Total HpCDD                    | ND     | 0.080           |            |             |
| OCDD                           | ND     | 0.56            | 0.001      | 0.00        |
| 2,3,7,8-TCDF                   | ND     | 0.071           | 0.100      | 0.00        |
| Total TCDF                     | ND     | 0.071           |            |             |
| 1,2,3,7,8-PeCDF                | ND     | 0.041           | 0.050      | 0.00        |
| 2,3,4,7,8-PeCDF                | ND     | 0.037           | 0.500      | 0.00        |
| Total PeCDF                    | ND     | 0.037           |            |             |
| 1,2,3,4,7,8-HxCDF              | ND     | 0.030           | 0.100      | 0.00        |
| 1,2,3,6,7,8-HxCDF              | ND     | 0.024           | 0.100      | 0.00        |
| 2,3,4,6,7,8-HxCDF              | ND     | 0.030           | 0.100      | 0.00        |
| 1,2,3,7,8,9-HxCDF              | ND     | 0.030           | 0.100      | 0.00        |
| Total HxCDF                    | ND     | 0.024           |            |             |
| 1,2,3,4,6,7,8-HpCDF            | ND     | 0.038           | 0.010      | 0.00        |
| 1,2,3,4,7,8,9-HpCDF            | ND     | 0.049           | 0.010      | 0.00        |
| Total HpCDF                    | ND     | 0.038           |            |             |
| OCDF                           | ND     | 0.071           | 0.001      | 0.00        |
| <b>Total TEQ Concentration</b> |        |                 |            | <b>0.00</b> |

| INTERNAL STANDARDS      | PERCENT RECOVERY | RECOVERY LIMITS |
|-------------------------|------------------|-----------------|
| 13C-2,3,7,8-TCDD        | 85               | 40 - 120        |
| 13C-2,3,7,8-TCDF        | 81               | 40 - 120        |
| 13C-1,2,3,6,7,8-HxCDD   | 90               | 40 - 120        |
| 13C-1,2,3,4,6,7,8-HpCDF | 94               | 40 - 120        |
| 13C-OCDD                | 73               | 40 - 120        |

## NOTES:

Calculations are performed before rounding to avoid round-off errors in calculated results

# QC DATA ASSOCIATION SUMMARY

G0J260325

## Sample Preparation and Analysis Control Numbers

| <u>SAMPLE#</u> | <u>MATRIX</u> | <u>ANALYTICAL<br/>METHOD</u> | <u>LEACH<br/>BATCH #</u> | <u>PREP<br/>BATCH #</u> | <u>MS RUN#</u> |
|----------------|---------------|------------------------------|--------------------------|-------------------------|----------------|
| 001            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 002            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 003            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 004            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 005            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 006            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 007            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306217                 |                |
| 008            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 009            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 010            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 011            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 012            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 013            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |
| 014            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |

(Continued on next page)

# QC DATA ASSOCIATION SUMMARY

G0J260325

## Sample Preparation and Analysis Control Numbers

| <u>SAMPLE#</u> | <u>MATRIX</u> | <u>ANALYTICAL<br/>METHOD</u> | <u>LEACH<br/>BATCH #</u> | <u>PREP<br/>BATCH #</u> | <u>MS RUN#</u> |
|----------------|---------------|------------------------------|--------------------------|-------------------------|----------------|
| 015            | SOLID         | SW846 8280                   |                          | 0315510                 |                |
|                | SOLID         | ASTM D 2216-90               |                          | 0306224                 |                |

## METHOD BLANK REPORT

## Trace Level Organic Compounds

Client Lot #...: G0J260325  
 MB Lot-Sample #: G0K100000-510  
 Analysis Date...: 11/12/00  
 Dilution Factor: 1

Work Order #...: DPPMW1AA

Matrix.....: SOLID

Prep Date.....: 11/08/00  
 Prep Batch #...: 0315510

| <u>PARAMETER</u>    | DETECTION     |              |              |               |
|---------------------|---------------|--------------|--------------|---------------|
|                     | <u>RESULT</u> | <u>LIMIT</u> | <u>UNITS</u> | <u>METHOD</u> |
| 2,3,7,8-TCDD        | ND            | 0.024        | ng/g         | SW846 8280    |
| Total TCDD          | ND            | 0.024        | ng/g         | SW846 8280    |
| 1,2,3,7,8-PeCDD     | ND            | 0.087        | ng/g         | SW846 8280    |
| Total PeCDD         | ND            | 0.087        | ng/g         | SW846 8280    |
| 1,2,3,4,7,8-HxCDD   | ND            | 0.054        | ng/g         | SW846 8280    |
| 1,2,3,6,7,8-HxCDD   | ND            | 0.045        | ng/g         | SW846 8280    |
| 1,2,3,7,8,9-HxCDD   | ND            | 0.047        | ng/g         | SW846 8280    |
| Total HxCDD         | ND            | 0.045        | ng/g         | SW846 8280    |
| 1,2,3,4,6,7,8-HpCDD | ND            | 0.080        | ng/g         | SW846 8280    |
| Total HpCDD         | ND            | 0.080        | ng/g         | SW846 8280    |
| OCDD                | ND            | 0.56         | ng/g         | SW846 8280    |
| 2,3,7,8-TCDF        | ND            | 0.071        | ng/g         | SW846 8280    |
| Total TCDF          | ND            | 0.071        | ng/g         | SW846 8280    |
| 1,2,3,7,8-PeCDF     | ND            | 0.041        | ng/g         | SW846 8280    |
| 2,3,4,7,8-PeCDF     | ND            | 0.037        | ng/g         | SW846 8280    |
| Total PeCDF         | ND            | 0.037        | ng/g         | SW846 8280    |
| 1,2,3,4,7,8-HxCDF   | ND            | 0.030        | ng/g         | SW846 8280    |
| 1,2,3,6,7,8-HxCDF   | ND            | 0.024        | ng/g         | SW846 8280    |
| 2,3,4,6,7,8-HxCDF   | ND            | 0.030        | ng/g         | SW846 8280    |
| 1,2,3,7,8,9-HxCDF   | ND            | 0.030        | ng/g         | SW846 8280    |
| Total HxCDF         | ND            | 0.024        | ng/g         | SW846 8280    |
| 1,2,3,4,6,7,8-HpCDF | ND            | 0.038        | ng/g         | SW846 8280    |
| 1,2,3,4,7,8,9-HpCDF | ND            | 0.049        | ng/g         | SW846 8280    |
| Total HpCDF         | ND            | 0.038        | ng/g         | SW846 8280    |
| OCDF                | ND            | 0.071        | ng/g         | SW846 8280    |

| <u>INTERNAL STANDARDS</u> | <u>PERCENT</u>  | <u>RECOVERY</u> |
|---------------------------|-----------------|-----------------|
|                           | <u>RECOVERY</u> | <u>LIMITS</u>   |
| 13C-2,3,7,8-TCDD          | 85              | (40 - 120)      |
| 13C-2,3,7,8-TCDF          | 81              | (40 - 120)      |
| 13C-1,2,3,6,7,8-HxCDD     | 90              | (40 - 120)      |
| 13C-1,2,3,4,6,7,8-HpCDF   | 94              | (40 - 120)      |
| 13C-OCDD                  | 73              | (40 - 120)      |

## NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## Trace Level Organic Compounds

Client Lot #...: G0J260325      Work Order #...: DPPMW1AC      Matrix.....: SOLID  
 LCS Lot-Sample#: G0K100000-510  
 Prep Date.....: 11/08/00      Analysis Date...: 11/12/00  
 Prep Batch #...: 0315510  
 Dilution Factor: 1

| <u>PARAMETER</u>    | <u>SPIKE</u>  | <u>MEASURED</u> | <u>UNITS</u> | <u>PERCENT</u>  | <u>METHOD</u> |
|---------------------|---------------|-----------------|--------------|-----------------|---------------|
|                     | <u>AMOUNT</u> | <u>AMOUNT</u>   |              | <u>RECOVERY</u> |               |
| 2,3,7,8-TCDD        | 2.50          | 2.56            | ng/g         | 103             | SW846 8280    |
| 1,2,3,7,8-PeCDD     | 6.25          | 6.02            | ng/g         | 96              | SW846 8280    |
| 1,2,3,6,7,8-HxCDD   | 6.25          | 6.15            | ng/g         | 98              | SW846 8280    |
| 1,2,3,4,6,7,8-HpCDD | 6.25          | 6.30            | ng/g         | 101             | SW846 8280    |
| OCDD                | 12.5          | 12.8            | ng/g         | 103             | SW846 8280    |
| 2,3,7,8-TCDF        | 2.50          | 2.53            | ng/g         | 101             | SW846 8280    |
| 1,2,3,7,8-PeCDF     | 6.25          | 7.11 a          | ng/g         | 114             | SW846 8280    |
| 1,2,3,6,7,8-HxCDF   | 6.25          | 6.50            | ng/g         | 104             | SW846 8280    |
| 1,2,3,4,6,7,8-HpCDF | 6.25          | 6.51            | ng/g         | 104             | SW846 8280    |
| OCDF                | 12.5          | 13.3            | ng/g         | 106             | SW846 8280    |

| <u>INTERNAL STANDARD</u> | <u>PERCENT</u>  | <u>RECOVERY</u> |
|--------------------------|-----------------|-----------------|
|                          | <u>RECOVERY</u> | <u>LIMITS</u>   |
| 13C-2,3,7,8-TCDD         | 84              | (40 - 120)      |
| 13C-2,3,7,8-TCDF         | 79              | (40 - 120)      |
| 13C-1,2,3,6,7,8-HxCDD    | 94              | (40 - 120)      |
| 13C-1,2,3,4,6,7,8-HpCDF  | 88              | (40 - 120)      |
| 13C-OCDD                 | 84              | (40 - 120)      |

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**Trace Level Organic Compounds**

**Client Lot #....:** G0J260325      **Work Order #....:** DPPMW1AC      **Matrix.....:** SOLID  
**LCS Lot-Sample#:** G0K100000-510  
**Prep Date.....:** 11/08/00      **Analysis Date...:** 11/12/00  
**Prep Batch #....:** 0315510  
**Dilution Factor:** 1

| <u>PARAMETER</u>    | <u>PERCENT RECOVERY</u> | <u>RECOVERY LIMITS</u> | <u>METHOD</u> |
|---------------------|-------------------------|------------------------|---------------|
| 2,3,7,8-TCDD        | 103                     | (70 - 115)             | SW846 8280    |
| 1,2,3,7,8-PeCDD     | 96                      | (71 - 116)             | SW846 8280    |
| 1,2,3,6,7,8-HxCDD   | 98                      | (78 - 116)             | SW846 8280    |
| 1,2,3,4,6,7,8-HpCDD | 101                     | (73 - 121)             | SW846 8280    |
| OCDD                | 103                     | (74 - 112)             | SW846 8280    |
| 2,3,7,8-TCDF        | 101                     | (76 - 108)             | SW846 8280    |
| 1,2,3,7,8-PeCDF     | 114 a                   | (73 - 112)             | SW846 8280    |
| 1,2,3,6,7,8-HxCDF   | 104                     | (68 - 119)             | SW846 8280    |
| 1,2,3,4,6,7,8-HpCDF | 104                     | (72 - 110)             | SW846 8280    |
| OCDF                | 106                     | (73 - 110)             | SW846 8280    |

| <u>INTERNAL STANDARD</u> | <u>PERCENT RECOVERY</u> | <u>RECOVERY LIMITS</u> |
|--------------------------|-------------------------|------------------------|
| 13C-2,3,7,8-TCDD         | 84                      | (40 - 120)             |
| 13C-2,3,7,8-TCDF         | 79                      | (40 - 120)             |
| 13C-1,2,3,6,7,8-HxCDD    | 94                      | (40 - 120)             |
| 13C-1,2,3,4,6,7,8-HpCDD  | 88                      | (40 - 120)             |
| 13C-OCDD                 | 84                      | (40 - 120)             |

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.